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REHABILITATION LITERATURE

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Article of the Month

Role Modifications of the Handicapped Homemaker

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About the Author . . .

Dr. Christopherson is Professor of Child Development and Family Relations in the School of Home Economics, College of Agriculture, University of Arizona. After majoring in psychology at Columbia University, he received his M.A. and Ed.D. degrees from Teachers College, Columbia, in 1950 and 1953 respectively. Dr. Christopherson was a teacher at Oklahoma A. & M. (now Oklahoma State University) from 1951 to 1954. From 1954 to 1958 he taught at the University of Connecticut, becoming head of the Department of Child Development and Family Relations in 1956. He has held membership in the American Psychological Association, American Sociological Association, and the National Council on Family Relations. He is on the Board of Directors of the Council and also of the Tucson Nursery School, the Arthritis and Rheumatism Foundation, Southwest Chapter, and the Family Service Agency of Tucson. Dr. Christopherson serves on the interdisciplinary committee of the new Institute of Rehabilitation at the University of Arizona.

This original article was written especially for Rehabilitation Literature.

IN AN ERA marked by phenomenal technological progress and sociocultural change, roles determined in former times largely by the fact of sex have elaborated impressively. This widely observed phenomenon can be ascribed partially to the increasing specialization within society and in part to a general broadening of the cultural base within which appropriate roles are defined. The burgeoning variety of professional, social, and domestic roles open to both men and women has caused social scientists to speculate over the degree of sex-role confusion characteristic of today's society.*

Notwithstanding the dramatically increasing role prerogatives available to men and women, many of which defy sex typing or, at best, are only quasi sex-typical, few would dispute the assertion that to the extent there is an "American Culture," the ethos of this culture still defines homemaking and breadwinning as the major roles of women and men respectively. When a person departs from his major role as a result of the deprivation of strength, energy, and mobility rather than by choice, we can assume that he is confronted with what can be and frequently is a seriously disorganizing and security-threatening situation. It is imperative that the individual in such a situation reappraise himself in relation to his goals and the available means of realizing them. Role modifications result. This paper is directed to a consideration of these role changes among physically handicapped women—a group that, by comparison with handicapped men, largely has been neglected.†

*Helen Mayer Hacker, New Burdens of Masculinity, *Marriage and Family Living*, 19:3 (August, 1957), p. 227-233. Lynn White, Jr., The Changing Context of Women's Education, *Marriage and Family Living*, 17:4 (November, 1955), p. 291-295.

†There have been a few notable exceptions to this generalized neglect. Two that might be cited are the work of the Institute of Physical Medicine and Rehabilitation of the New York University-Bellevue Medical Center and that of the School of Home Economics, University of Connecticut. Also Wayne State University, Michigan State University, and others have contributed in the form of kitchen research, conferences, and publications.

Economic Significance of the Disabled Woman

While we have been quick to give lip service to the importance of the homemaking role and have gone so far as to register genuine sympathy when the homemaker has become disabled, we have been slow to comprehend the true economic significance of the total situation. Dr. Howard Rusk's estimate that there are approximately 10 million disabled homemakers[17] should and, to some extent, has shocked us out of complacency. Homemaking tasks do not conveniently evaporate when the person who has normally assumed them becomes incapacitated. Other members of the family assume them or someone is hired to do so. Whether the economic impact is measured by the husband's reduction of normal work hours to compensate for his wife's disability or the cost of paying others to come into the home, the sum is considerable. Rusk states: "Industrialists are well aware of the effect of home life, worry, and added responsibilities at home on the efficiency of the worker on the job. These influences are reflected in lower production and absentee-ism at a time when the wage earner will need to be at the peak of earning capacity."[17]

While such a concept of economy is important it is perhaps unnecessarily limited. There is in addition, and certainly of equal importance, the emotional economy of the homemaker and, in effect, the entire household to be considered.

Proposed Legislation

Regarding the facilitation of more adequate rehabilitative measures for the handicapped homemaker, one of the most promising developments has been the introduction of an interest in a bill entitled The Independent Living Rehabilitation Bill. This bill, also known as The Rehabilitation Act of 1959, S.772, was introduced in the 86th Congress by Senator Lister Hill of Alabama. The bill was introduced in the House of Representatives by John Fogarty of Rhode Island and Carl Elliott of Alabama. Hearings are anticipated in both the Senate and the House during 1960.

Briefly, the legislation gives the state-federal rehabilitation agency the authority to serve handicapped people whose objectives may not necessarily be vocational in the usual sense. Also, it provides for a grant-in-aid program for the construction or expansion of rehabilitation facilities, including workshops. Last, it creates a rehabilitation evaluation agency in each state to which a person can go for evaluation of his rehabilitation potential.*

Under this bill, the handicapped homemaker will be entitled to services of this kind for the first time. Tacitly, at least, her occupational significance is being acknowledged as well as her right to aid. Other deserving groups will benefit also.

Rehabilitation Institute Established

There are excellent university programs in rehabilitation that deserve recognition. In western institutions, for example, are those at Stanford University, the University of Oregon, the University of Washington, San Francisco State College, and Los Angeles State College. In the Midwest, the program at the University of Minnesota, concerned primarily with vocational aspects, might be singled out. In the East, outstanding programs function at New York University and the University of Connecticut, while, in the Southeast, the University of Florida's program is noteworthy.

Unique in the field of rehabilitation is the program established at the University of Arizona in September, 1959. David Wayne Smith, D.Ed., was appointed director of the Institute of Rehabilitation. The Institute's operations will be financed initially by some $30,000 in federal and state funds.

The new Institute of Rehabilitation will coordinate all requests for research grants, workshops, and training in the area of rehabilitation. A series of conferences is already under way in which rehabilitation teams from different counties in Arizona come to Tucson for special training in utilization and coordination of community facilities. Outstanding authorities in rehabilitation and community organization from various parts of the country are brought in to staff the conferences.

The Institute also plans to offer a series of courses in rehabilitation at the senior and graduate level for both university students and community people already engaged in rehabilitation or related work. The courses will be staffed by members of the Institute's interdisciplinary committee and will commence in 1961.

The College of Education, the schools of Home Economics and Nursing, and the departments of Anthropology, Psychology, and Sociology will work with the Institute. Research and demonstration projects in the area of the disabled homemaker will be undertaken principally by the School of Home Economics.* Plans are being formulated to study the adjustments of physically handicapped men in whose families a role reversal has been precipitated; *i.e.,* he will have taken major responsibility for homemaking and child care tasks while the wife has assumed major responsibilities in the role of breadwinner.

*Legislative Newsletter of the National Rehabilitation Association, Vol. 1, No. 2, March, 1959; and a letter addressed to the writer dated Sept. 8, 1959, from A. D. Puth, Assistant Director, National Rehabilitation Association.

*The first conference of this kind was the Conference on Rehabilitation and Work Simplification held at the University of Arizona June 8-12, 1959. The Conference, administered through the Institute, was cosponsored by the schools of Home Economics and Nursing in cooperation with the State Department of Health, Arizona Vocational Rehabilitation, and the Arthritis and Rheumatism Foundation, Southwest Chapter.

Concepts of Role and Role Modification

While the term *role* already has been used above, it would seem in order, nevertheless, to attempt to nucleate the several possible connotations of the term into an operational concept. Role might be considered as a system of related behavior that a person regularly performs in a certain group or social situation as a result of his "notions" of (*a*) the general and characteristic nature of the situation, (*b*) the expectations of the members of the groups concerning him, and (*c*) his own obligations and capabilities. Other determinants of role are the notions of other persons in the situation concerning the individual. Also, such factors as age, sex, and family culture are taken into account in the definition of role within the family group.

The role adjustment of the individual is facilitated to the extent these aspects of role are consistent among themselves. To the extent that one or more of the aspects is out of harmony with the others, the role adjustment is impaired or threatened. An advantage of this definition is the display—in sharp relief—of the critical qualities of the individual's notions—in effect, his perceptions.

We might say that role adjustment is apparent when a fairly clear-cut division of labor has been effected and family members carry out the tasks associated with their roles in a way that gets the job done with a minimum of frustration and duplication or neglect. John Spiegel uses the term *complementarity* to describe the situation.[20] Spiegel indicates that a high complementarity of roles within a family facilitates equilibrium, whereas a low complementarity makes for disequilibrium. The family role behavior is re-equilibrated when, after disequilibrium, role complementarity is restored or, in effect, when the behavior of the family members is repatterned in such a way that individual and family needs are met in a reasonable and efficient way. Spiegel states: "When complementarity of roles has been established on an essentially new basis, we can use the term 'role modification.' "[20]

In light of the apparent fact that for women the homemaking-mother role is still pre-eminent in America, it should be understood that this role includes a complex of services, attitudes, and expectations. This role is not only unusually complex but might be characterized most accurately as an "all-purpose role." The homemaker is many things to many people. When as a result of physical disability the homemaker-mother has to retreat from her all-purpose role, the family is disequilibrated and vulnerable. The redefinition of roles that follows frequently involves other family members. Indeed in anxiety over the accomplishment of the manifold tasks necessary for the family's activities of daily living, the mother's emotional and psychological needs may be overlooked. Roles that have had and still have worth-inducing value come to be pre-empted by others.

If the role additions assumed by others are satisfying, they may be reluctant to relinquish them should the mother actually be or become capable of assuming the tasks. A relative, for example, might hesitate to give up the new status and importance she enjoys on the ostensible basis that it is much easier for her to do the job or that the tasks are too difficult for the mother "just yet." If the assumption of tasks is not satisfying to those assuming them or if they become obviously burdensome, the mother might suffer excessive guilt in addition to her other anxiety and frustration. Clearly, a highly specialized kind of rehabilitative education is needed—a kind that goes considerably beyond the point of dealing with the physical and organic difficulties alone.

Elizabeth Eckhardt May, a recognized authority in the rehabilitation of the handicapped homemaker, states that "the best time to begin the program of rehabilitation is usually while the homemaker is still in the hospital. This is where the occupational therapist may be able to help her to begin, in even a small way, to gain a sense of adequacy in connection with housekeeping chores."[13] The handicapped homemaker and the members of her family must all understand the goals of rehabilitation and the means of achieving them. The lack of such education has constituted one of the most serious impediments to rehabilitation of this group to date. It is hoped that the Independent Living Rehabilitation Bill and the currently increasing work and attention being directed to the welfare of the disabled homemaker will help remedy this hiatus.*

Interview Study of Role Modifications

The germ for the study reported here came from a series of interviews conducted in Connecticut during the summer of 1956. The writer interviewed a number of handicapped mothers on problems in child care while serving as a consultant in child development for the demonstration project entitled "Work Simplification in the Area of Child Care for Physically Handicapped Women," being conducted by the School of Home Economics, University of Connecticut. One of the provocative observations that emerged from the interviews was that the woman's reactions, in particular her adjustment to the disabling condition and her effectiveness in the role of homemaker, seemed to bear little necessary relation to the relative seriousness of her case. Indeed, some of the physically most limited homemakers seemed to have the best organized and smoothly operating households. This observation suggested that there might be greater potential for effective homemaking than one would ordinarily suspect in terms of the apparent seriousness of a physical disability

*A very good example of the sort of retraining a handicapped mother needs in order to become rehabilitated is to be found in the following article: Eileen Sharpe, One-Armed Mother, *Ladies Home Journal* (July, 1959), p. 111-113+. The article is based on the work done at the University of Connecticut.

and, also, that interpersonal behavior and role transactions in the home frequently reflect inadequacies that do not derive from the disability per se. The latter is a fairly commonplace observation but it may have particular significance in any analysis of family dynamics among the physically handicapped.

During the summer of 1959, 120 handicapped mothers were interviewed in Tucson, Arizona.* All the subjects had children 12 years of age or younger. Twenty of these mothers were subjects of a pilot study. Of the 100 families interviewed for the study proper, 16 were disqualified for various reasons. Since data from the pilot group were not included in the report the total number of handicapped mothers studied was 84. No attempt was made to limit the selection of subjects in terms of social or economic status, although unquestionably these factors are of considerable significance. The interviews did include an estimate of socioeconomic level based upon occupation, housing, and education of the husband.

The major modification in the design of the interview schedule resulting from the pilot study was inclusion of data classified in terms of "intensity," "extensity," and "protensity" for each subject.† These terms were adapted from Goodenough.[8]

Subjects were also classified according to the body parts or extremities in which the disability occurred. With these estimates it became possible to compare the subjects' degree of limitation in upper and lower extremities with their general competency in homemaking tasks and general attitude toward life as estimated by the interviewer. No attempt was made to consider the particular type of disability in terms of differential effect upon the individual.‡

Four subscales—two for intensity and two for extensity—each had four categories. Thus, for these two variables alone, there were 256 possible combinations. The data from the 84 women proved to be too limited to warrant reliable conclusions but the randomized pattern that emerged seemed to support the "hunch" that adequacy and role adjustment tend to be independent of the intensity of the handicap.

The comparisons of the subjects in terms of their protensity with estimated extensity indicated, as might be expected, that the subjects who acquired their handicaps most recently reflected a variety of less favorable attitudes toward their roles and circumstances than those whose handicaps were of longer duration. The exceptions to this were largely made up of those who seemed to have stopped trying to learn new and better ways to do things and, at the other end, of those who seemed determined not to give in to the new handicap and who took considerable pride in the slightest new accomplishment or its contemplation. In many cases the extent of encouragement and retraining by doctors, physical therapists, and others seemed to be significant in determining the scope of the roles available as perceived by the homemaker.

In addition to maximizing role adequacy by building personal competency, the external or environmental factors can be modified to facilitate the extension and maximization of homemaking roles. Of the handicapped women studied, 16 percent had some structural modifications in their homes. Typical modifications were widened doorways and hallways to permit the passage of wheel chairs, ramps rather than steps, and cupboards built in at the proper height. More typical of environmental modifications, however, were alterations of equipment—for example, wheel chairs, hydraulic hoists for lifting patient from chair to bed, casters on dressers and beds for easier movement, and tongs for picking up objects. Many women had a variety of aids for the "activities of daily living." Special feeders, combs, toothbrushes, and dressing aids typified the latter category.

A number of mothers who had found it possible to undertake homemaking tasks were more inclined to use ordinary equipment in extraordinary ways. For example, a one-armed woman placed wet terry cloth under a potato before peeling it. Special equipment for this task would involve the use of some special jig such as a spike to hold the vegetable. Holding a bottle lid firm by inserting it in a door crack and pressing against the door with the body so the lid can be unscrewed illustrates what Mrs. Neva Waggoner, research coordinator for the handicapped homemaker project at the University of Connecticut, calls "body English." The role aspect most prominent in the use of regular equipment in special ways was that associated with child care.

Carrying or transporting a child is one of the chief difficulties of the handicapped mother regardless of

*The demographic characteristics of southern Arizona are particularly significant with respect to the arthritic and other rheumatic disorders. This can be accounted for by the fact that the warm, arid climate affords a measure of relief, or holds some promise of doing so, sufficiently enticing to contribute significantly to the migration of afflicted people to the area. The executive director of the Arthritis and Rheumatism Foundation, Southwest Chapter, Fred E. Peterson, estimates that there are as many as 30,000 people suffering from arthritis in the Tucson metropolitan area alone.

†*Intensity* is used to indicate the relative severity of whatever condition the subject has. Thus, a patient might be only slightly or totally disabled by a disease such as poliomyelitis. *Extensity* refers to the extent to which the condition or physical limitation, whatever its intensity, has affected the individual. Thus, one person might be more or less affected by a particular condition with a low intensity than another might be affected by the same condition but with a more severe intensity. *Protensity* refers to the length of time the condition has obtained. In general, we might suspect that the longer the disability has obtained, the better adjustment the person will have made, all other things being equal.

‡Undoubtedly this factor is important enough to receive careful consideration. For example, it might be assumed that the emotional problems of the person as well as the physical problems would vary from one condition to another, carry different prognoses, and have different long-range implications. However, these considerations were judged to be beyond the scope of this paper.

whether the upper or lower extremities are disabled. One mother carried the baby inside her blouse; another placed the child on a blanket and carried the blanket in her teeth; another mother pushed her children on a serving tray and another on a bathinette. One taught her child to hang onto her neck while she walked about. To dress the children, prepositioning the clothing as well as the child was common. Equally ingenious and adaptive measures were used in bathing, dressing, feeding, toileting, and supervising children.*

Other Aspects of Child Care Among Handicapped Mothers

In the handicapped mother's achieving a sense of certainty and adequacy, child-rearing or child care is possibly the most difficult facet of the homemaking-mother role. Homemaking skills involving beds, dishes, floors, and even foods have a certain constancy about them and can be dealt with in somewhat the same way from day to day once a basic skill is achieved. Children, on the other hand, change and challenge in many respects almost daily. A recalcitrant or angry child may require a more challenging kind of competency than does, say, a stack of dirty dishes or an unmade bed.

Discipline and outdoor supervision were mentioned more than any other area of child care as posing the most difficult problems the handicapped mothers faced with their children. To be sure, this might have been predicted had the question never been asked; however, there are implications for the handicapped that are not quite so crucial for the normal mother. The handicapped mother may have to accomplish with words and emotional rapport what the nonphysically handicapped mother accomplishes with strength, speed, and energy.

While the primary concern of this discussion is to explore the nature of role modifications among handicapped homemakers and to report in a general way research findings that illuminate such modifications, there are times when the implications concerning training for rehabilitation are so obvious they cannot be overlooked. One of these is the importance to the disabled mother of acquiring a sound and workable knowledge of the normal developmental stages of children. Many "normal" parents are handicapped by inability to discern actual problem behavior from predictable developmental behavior.

Unfortunately, there are no formulae or unerring handbooks available from which this information can be obtained. However, the work of Gesell and others suggests that there are "average" ages and certain stages at which traits and skills, as well as problems, characteristically appear. Insightful interpretation and application of this work has proved its worth. We must bear in mind that the child of the handicapped homemaker is not an average child in some respects. Moreover, it seems quite possible that our very culture mitigates against our acquiring an accurate knowledge concerning developmental potentialities of children. Some students of the child have a lingering suspicion that our expectations are often based upon tradition and adult convenience to a greater extent than might be the case were training geared to the child's intrinsic abilities. There is evidence from other cultures and from the homes of the handicapped that indicates strongly the desirability of working toward a more accurate articulation of the child's potentialities and our expectations than has been usual in our society to date.

The handicapped mother, in achieving role adjustment and adequacy, must be guided by the law of parsimony. She must do things in the most economical and simple way. Inherent in this suggestion is the long-range view, for most of us would agree that the normal mother does far too much for her children in the matters of routine care. To do for the child things he can learn to do for himself merely because it is temporarily more expedient is essentially a short-sighted approach to child care. It involves perhaps a few minutes saved, but the mother is committed to many future hours of largely unnecessary service.

Some indication of a trend among disabled mothers toward having their children do routine matters of self-help and care early seems apparent from the following observations of child self-care: 53 percent reported that their children washed themselves at 3 years or younger; 28 percent that their children bathed themselves at this age; 7 percent that their children straightened their rooms at 3 years or younger; 4 percent that children of this age made their own beds; 36 percent that their children got themselves ready and into bed at 3 years or younger; and 40 percent that their children entertained themselves as a rule or upon request at this age. Since no control group was utilized, we can only suggest that children of the handicapped tend to develop these skills and assume these responsibilities somewhat earlier than children of nonphysically handicapped mothers.

Handicapped mothers must learn to perceive alternative ways to accomplish child care tasks and thus reduce associated tensions. It is essential to keep in mind that there is usually a way to get something done even though a new approach may be necessary. Mechanical advantage is a great asset to the physically limited in lifting and transporting. Sometimes this comes from the use of the wheel or of special equipment, but other times the extra

*Special modifications of child care equipment are being studied at the Home Economics Research Center, University of Connecticut.[26] Cribs that open from the side, play pens with extended legs, and special carrying and toileting devices are among the modifications under consideration. Some of the points with which this research will have to deal are the relatively high cost of such equipment due to limited demand, whether special equipment is warranted in terms of the short time the child or mother is aided by it, and the inclination on the part of handicapped homemakers to use standard equipment whenever possible in order to form stronger identifications with the normal mother in her normal role—a strong trend indicated in the present study.

push comes from the child. A number of mothers reported that they were able to change diapers because the baby lifted his buttocks at the appropriate time, or that he jumped when he was to be lifted by his mother. Ballet and adagio dancers have long been familiar with this principle of overcoming inertia. Another point important to the mother is that she must learn to cope with each new problem as it arises. A child used to strong, sure hands may balk at the less sure attempts of the mother when she decides it is time she try to take over. Practically, of course, some delay is often necessary.

A third point to keep in mind is that, with regard to indoor and outdoor supervision, it is unwise to impose unnecessary limitations on children. When a child is forbidden to do something there must be an understanding between parent and child that the parent can enforce the limits she has imposed. The mothers interviewed reported one of their most vexing problems to be the enforcing of limits due to the mobility differential between the child and mother. A better approach, perhaps, is to help the child learn safe ways to move about the house and outdoor area. For example, a young toddler can be taught to back down stairs. Such a simple skill prevents much unnecessary worry on the part of a mother for whom the enforcement of forbidden exploration is extremely difficult. It also prevents incidents that strain relationships between the mother and child and, perhaps most important, it helps the child while very young to form habits of behavior that lead to self-confidence and personal competence. Again, this point has to be tempered with good judgment.

Some handicapped mothers indicated that external controls such as fences and locks helped with outdoor supervision. The mothers judged most adequate in this respect, however, were those who seemed to use greater imagination. Thirty-nine percent reported that they made special efforts to induce neighborhood children to play in their yards rather than have their own children play elsewhere. Hospitality and suitable, not necessarily expensive, play equipment is usually all that is needed. Neighbors assumed some responsibility for keeping the mother informed about the children's whereabouts in many instances. Even though many demands are made upon the strength and ingenuity of the disabled mother, the rewards in this basic area of child care are commensurately great.

Role Extensions and Reductions

After the onset of the handicap 30 percent of the handicapped mothers performed services for their families that were not performed before. Such tasks as cleaning, sewing, and particularly food preparation were among the new services; however, the single most frequently mentioned item had to do with services provided for the children. Mothers read to their children, played games with them, told stories, and talked with them in a way not characteristic prior to the handicap. Fifty percent indicated that they had more time for their children after the disability occurred. That a physical disability seriously alters the traditional homemaking role is indicated by the fact that 93 percent of the subjects were forced to discontinue a substantial portion of their homemaking activities and tasks as a result of the handicap.

Thirty-three percent of the women had taken up new hobbies or creative activities since the disability. These activities encompassed such diverse enterprises as forming a weekly poker club, flower arrangement, making artificial flowers, creating needle-point scenes, and even "operating a baseball pool." Fifty percent of the subjects had begun activities in the community since the onset of the disability. Typical of these activities were telephoning for school functions, founding a floral guild for the disabled, founding a club called Handicappers Homecraft Club, general church work, teaching Sunday School classes, and cub scout work. Forty-six percent said they had been forced to discontinue community activities. The activities that were discontinued were of a similar nature but frequently involved greater mobility—for example, soliciting for worthy causes. The net gain of 4 percent might be construed to mean that community activities offer an important potential source of rehabilitation through modified, compensatory role activities.

The responses of the homemakers concerning the major adjustments of the family as a result of the disability were varied, as might be expected. They were varied to the point where only unusually broad categories for tabulation would have been useful; however, almost every reply was a composite of several factors. Rather than tabulate the answers it seemed a wiser course to discuss answers thought representative and to point out extremes. The answers ranged from one subject's attributing the loss of her husband to the handicap to the reply made with unexpected frequency that the handicap had been a blessing in disguise. Seven subjects indicated that their families had been more closely knit and happier since the disability. The following excerpt, though taken from an interview not included in the present study, seems to typify and paraphrase the seven replies. A young woman, age 31, mother of 3- and 5-year-old daughters, had this to say:

> . . . At the time I got polio, I was well on my way toward being a full-time club woman. I guess I'm a born joiner. I had a Girl Scout troop with which I still work occasionally; I held an office in the church auxiliary; I was active in the League of Women Voters and several other community organizations. I detested housework and was beginning to resent the time and attention my children and family demanded. When I was forced to stay home, I began to enjoy homemaking for the first time. I now enjoy spending time with my children, and learning to master household tasks gives me a great sense of accomplishment. I think my family is happier now and actually better off.

In between polar-type replies were some centering around such matters as sensitivity to curiosity; frustration over limited strength, mobility, and energy; inability to "trust" feelings of other family members; and general bitterness over the arbitrary way the disablement struck.

Perception As a Factor in Role Modification

How one feels about a role and himself in relation to it is extremely important. Weiss and Samelson comment upon the point as follows: "The identification of self with role may be achieved either by finding in the required role activities a basis for a sense of worth, or alternatively by devaluation of the self and feelings that 'I'm not good for anything else.' "[23]

In regard to the first means of achieving identification cited by Weiss and Samelson, the loss of the ability to function in the role of homemaker might well have initially caused the individual to experience a temporary loss of self-identity. However, we might assume that, since homemaking is perceived as a worth-inducing role, each new step or adjustment in the direction of role competency would be reinforcing and would motivate the disabled person to achieve further. Observation supported this assumption throughout the study. In the alternative means suggested by Weiss and Samelson, we might assume that homemaking has been perceived as a necessary role, but one of limited worth-inducing qualities—particularly when compared with occupational or career roles that have enticed the person from afar. Assuming that the physical disability ordinarily will not have made the desired roles more attainable, it seems likely that there will be less initiative to regain adequacy in the devalued homemaking role. Several of the subjects interviewed who seemed to fit this category effected a passive, withdrawal-like adjustment. They apparently valued their invalid status and the respite it offered from the disagreeable burdens of homemaking.

For others who had before injury devalued the homemaking role and themselves by virtue of the resultant identification, the disability functioned as a catalyst in a basic perceptual change. They found value and satisfactions in homemaking hitherto unsuspected. Several indicated a hypothetical disinclination to revert to their former style of life and its values, provided such a thing were possible.

What the determinants are that account for these differences in role modification is not entirely clear. Some probably are inherent in the individual's constitution; others might well derive from the rehabilitation process. This possibility would seem to have important implications for those who form the rehabilitation team—the doctor, physical therapist, nurse, home economist, and possibly the often underestimated other members of the family.

The homemaker for whom the likelihood of regaining appreciable physical capacity is slight presents a special problem. She is severely limited physically. How can she form a worth-inducing identification with the basic homemaking role when so many of the tasks and responsibilities of the role are beyond her physical capacity? One solution reflected in varying degrees by a number of the subjects interviewed indicated that they had assumed what might be designated as an "enabling" role. It will be recalled that little predictable relation was found between the intensity of the disability and the estimated or observed adequacy of the household operation. Superficial observation might suggest that the issue hinges upon the inclinations and abilities of other household members to assume the various homemaking tasks. While the point is difficult to buttress with clear-cut evidence, the writer has a deep and abiding conviction that the role of the homemaker is the most crucial factor. The enabling role is subtle and difficult to describe; however, the 15 severely handicapped homemakers who most clearly manifested the enabling role seemed to have the majority of the following behavior characteristics: They were cheerful and optimistic; maximized their emotional rapport with their children and husband; took an active, responsible part in family decisions; encouraged other family members in the new division of labor and rewarded them with cheerful praise and humor. In addition, their comments indicated that they had faced up to the prognoses of their conditions and no longer had unrealistic hopes or were sensitive to the cosmetic aspects of their conditions.

If there is a general principle to be derived from this observed role, it might be that the handicapped homemaker undergoing rehabilitation should be sensitized to her potential as a "setter of mood." The enabling role fully exploits what might be termed emotional reciprocity. Again, temperament and constitutional differentials are significant, but the potential for training and learning seems provocative.

Summary

This paper has been concerned with role modifications among handicapped homemakers who were mothers of children 12 years of age and younger. The writer is aware of the limitations inherent in a discussion of family roles that is limited essentially to one member of the family; a detailed consideration of the roles of other members of the family is soon to be undertaken. Training and the principles appropriate to rehabilitation programs for the disabled homemaker were given little emphasis due to the excellent discussions already in print. Some of the literature is particularly pertinent.[10, 13, 17, 26] It has been our purpose to call attention to the various aspects of the current and increasing interest in the handicapped homemaker, to point out that she has reason to be optimistic over the provisions of the proposed Independent Living Rehabilitation Bill, to report a study that, it is

hoped, has elaborated in a meaningful way the nature of role modification among handicapped mothers, and, finally, to call attention to the significance of the phenomenon of perception for rehabilitation theory and practice. Situations and conditions are inherently ambiguous. They take on meaning and impart direction to behavior as they are perceived or interpreted. A part of rehabilitation should be concerned with bringing about perceptual changes of such a nature as to generate hope and to promote personal and role adequacy.

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*The Institute of Physical Medicine and Rehabilitation, 400 E. 34th St., New York 16, N.Y., has prepared a series of summary sheets dealing with problems of the handicapped homemaker. They are: *Special Household Problems of Paraplegics, Special Household Problems of Hemiplegics, Special Considerations for Arthritic Homemakers, Selection of Household Equipment for the Disabled, Information Needed for Kitchen Planning.*

Review of the Month

Psychological Appraisal of Children with Cerebral Defects

By Edith Meyer Taylor, Ph.D.

Published for The Commonwealth Fund by Harvard University Press, Cambridge 38, Mass. 1959. 449 p. figs., tabs. $8.50.

Reviewed by Ann E. Heilman, Ph.D.

THE BOOK *Psychological Appraisal of Children with Cerebral Defects* is that happy combination, the right book by the right author. This is not primarily a manual of technics on how to test the neurologically injured child, although no book to date is so rich a source of varied and suitable test materials and procedures. Nor is it chiefly a theoretical consideration of those difficulties that the psychologist must encounter and overcome in order to arrive at a meaningful understanding of the psychological status of a child with cerebral defect, although the author's skill in communicating these constitutes one of the book's chief excellencies. Technics and theoretical considerations are seen in perspective against the background of "case portraits" of carefully described children. The reader follows E. (the examiner) throughout the course of each examination, deciding with her where to begin, what clues to pursue (and how and when to pursue them), what concessions to make for sensory or motor impairment, what activities to omit or introduce in the interest of preserving or restoring morale, what modifications to make under pressure of the child's fatigue or the limitations of time. The reader, like E., keeps her attention focused upon the child. Yet inevitably there emerges a picture of E. that shows her to be both artist and scientist and gives authority to what she has written.

The author is fortunate in her background. Edith Meyer Taylor first studied at the University of Leipzig, where original contributions were then being made in child psychology. Later, for five years, she worked in Geneva under Jean Piaget, on problems concerning the development of children's reasoning. Newly arrived in this country, she spent a year at Gesell's clinic in New Haven. Later she became Dr. Elizabeth Lord's successor in work with Dr. Bronson Crothers in the neurological division of the Children's Hospital in Boston. The present book is an outgrowth of work in this unit.

About the Author . . .

Dr. Taylor received her Ph.D. degree in 1933 in Leipzig, Germany. She has been research associate at Harvard University Medical School since 1944, associate professor at Clark University since 1953, and psychologist with the Cerebral Palsy Unit, Children's Medical Center, Boston, since 1955. Her special fields are neurological disorders in children, clinical diagnosis, and differential diagnosis. Her present work reviewed here is a companion to The Natural History of Cerebral Palsy, by Drs. Crothers and Paine, reviewed in the February issue of Rehabilitation Literature.

About the Reviewer . . .

Dr. Heilman is associate professor of psychology, Barat College of the Sacred Heart, Lake Forest, Ill., and is in private clinical practice in Chicago. She earned her Ph.D. in psychology at Ohio State University. Dr. Heilman formerly taught at the Chicago Undergraduate Division, University of Illinois, and at Denison University, Granville, Ohio. She also was an intern at Letchworth Village, Thiells, N.Y., worked with delinquents for four years, and was psychologist at the Illinois Children's Hospital-School, Chicago, for two years and consulting psychologist at St. John's Crippled Children's School and Hospital, Springfield, Ill.

In 1951 a follow-up study on over 1,800 patients with cerebral palsy was begun by Dr. Crothers. The results of the psychological studies indicated that the earlier appraisals had high predictive value even for those children commonly considered "untestable." Thus, the methods of appraisal begun by Dr. Lord and adapted and expanded by Dr. Taylor and her colleagues seemed to have been endorsed. A description of these methods, for the use of other psychologists, was clearly desirable.

The present book was first thought of as a manual of technics, but soon the decision was made to present all methods as part of the total examining process. The primary intent of the book, according to the author, "is to advocate a clinical orientation that considers simultaneously many aspects of a patient's life situation without forfeiting the advantages of obtaining quantifiable data wherever possible."

There is an excellent introduction, a series of seven detailed "case portraits" with appropriate discussion, and a final section, excellently organized, on technics.

Four case portraits are of children with defects dating from birth or before. The diagnoses represented are: spastic hemiplegia; extrapyramidal lesion, athetosis, dysarthria; extrapyramidal lesion, athetosis, dysarthria, auditory defect; and hydrocephalus, spastic paraplegia. These are "idealized" cases. Descriptions of the child and of the psychologist's examination of him are reported for each case at 15 months, 4 years, 7 years, and 12 years. Behaviors observed on early examinations are discussed as they appear in varying degrees on later examinations. This developmental emphasis is one of the chief contributions of the book. Each child is discussed not only in regard to his own pattern of development, but against a background of the development history of a small number of other children of similar medical diagnoses.

The final three case portraits are descriptions of actual children whose defects date from later injury. One had pneumococcus meningitis at six months, one measles encephalitis at five years, and one a head injury at seven years. Each was examined on three occasions. Again, the stages of development and the problems of each are discussed.

The case portraits are perceptive and the approach of the psychologist to her task very flexible. The result makes stimulating reading.

The section on technics lists an admirable selection of old and new procedures, together with some European tests that are probably scarcely known in this country. Rough norms are given for some of the unstandardized materials, and norms and scoring systems given for some of the procedures for which published materials are not easily obtainable. The usefulness of the whole section on technics can be illustrated by the age norms supplied for block building, where Gesell, Revised Stanford-Binet, Minnesota, and informally obtained norms, ranging from 18 months to 6 years, are given.

Psychological Appraisal of Children with Cerebral Defects should become a classic in its field. It is a book that needed to be written. Psychologists, physicians, teachers, therapists, and social workers will all find it stimulating and enlightening. The case portraits ought to become standard reading for graduate psychology students in clinical training programs, not because of the nature of the cases described, but because of the way they make the work of the psychologist become alive.

Other Books Reviewed

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A Comparison of Educational Outcomes Under Single-Track and Two-Track Plans for Educable Mentally Retarded Children

By: **J. Wayne Wrightstone, George Forlano, J. Richard Lepkowski, Marvin Sontag,** and **J. David Edelstein**

1959. 299 p. figs., tabs. *(Cooperative Research Project Contract No. 6908, Project No. 144, U.S. Office of Education, conducted by the Board of Education of New York City through the University of the State of New York)* Available from Bureau of Educational Research, Board of Education of New York City, 110 Livingston St., Brooklyn 1, N.Y.

THIS IS A report of an experimental plan to classify and reassign pupils to appropriate high educable or low educable homogeneous classes. Under the former "one-track" program, children were grouped heterogeneously by age groups, with only secondary consideration given to degrees of similarity of individual emotional and social adjustment. The study is an evaluation of the effectiveness of the curriculum, organization, and procedures of both plans in terms of pupil growth, parental reactions, and observations of teachers and supervisors. A summary of the two-year evaluation (1957-1959) shows no clear trend favoring either homogeneous or heterogeneous grouping. Questionnaire responses of both teachers and supervisors, however, favored the reorganization plan in spite of recognition of problem areas in reorganized classes. Samples of study-developed tests and various check lists and interview forms used in the study are included. Data from an employment survey done in conjunction with the over-all study are given.

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The Education of Exceptional Children

By: **American Educational Research Association**

1959. (180) p. *(Rev. of Educational Research. Dec., 1959. 29:5:391-570)* National Education Association of the United States, 1201 16th St., N.W., Washington 6, D.C. $2.00.

CONTENTS: Teachers of exceptional children, Romaine P. Mackie and Harold M. Williams.—The gifted and the talented, Louis A. Fliegler and Charles E. Bish.—Mental retardation, Lloyd M. Dunn and Rudolph J. Capobianco.—Children with crippling conditions and special health problems, Frances P. Connor and I. Ignacy Goldberg.—The deaf and hard of hearing, Louis M. DiCarlo.—The blind and partially seeing, Samuel C. Ashcroft.—Emotional factors and academic achievement, Eli M. Bower and Jack Holmes.—The delinquent, William C. Kvaraceus.—The speech handicapped, Albert T. Murphy.—Organization and supervision of special education, Clyde J. Baer.

A six-year review of the literature prepared by a Joint Committee on the Education of Exceptional Children in cooperation with the Research Committee of the Council for Exceptional Children. The literature is identified in the extensive bibliographies following each article. A similar review was last presented in the Dec., 1953, issue of *Review of Educational Research.*

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The Employment of the Cardiac; Proceedings of Symposium, Buffalo, New York, March 20, 1959, Sponsored by Heart Association of Erie County and Chronic Disease Research Institute

Edited by: **Robert M. Kohn,** M.D.

1959. 112 p. Mimeo. Heart Association of Erie County, Ellicott Square, Buffalo 3, N.Y. $1.50.

THE PROCEEDINGS of this symposium, in which physicians, lawyers, and state officials participated, were devoted to the employability of the cardiac worker in relation to state workmen's compensation laws and their administration, particularly in New York state. (For a digest of the presentation made by Herman Hellerstein, M.D., see #225 this issue of *Rehab. Lit.*)

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Frontiers of Elementary Education, VI; Papers Presented at the Sixth Annual Conference on Elementary Education, School of Education and Division of the Summer Sessions, Syracuse University, 1959

Compiled and edited by: **Vincent J. Glennon**

1960. 79 p. figs. Paperbound. Syracuse University Press, University Station, Box 87, Syracuse 10, N.Y. $1.75.

THE MOST RECENT volume in a series resulting from the annual conferences held at Syracuse University contains eight papers ranging from the theoretical and philosophical through specific instructional areas and includes: The elementary school meets the blind child, Ferne K. Root.—Effective motivation for potentially superior students, J. Ned Bryan, Jr.—A tutoring experiment with brain injured children.—James J. Gallagher.

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Growth Diagnosis; Selected Methods for Interpreting and Predicting Physical Development from One Year to Maturity

By: **Leona M. Bayer** and **Nancy Bayley**

1959. 241 p. figs., tabs. University of Chicago Press, 5750 Ellis Ave., Chicago 37, Ill. $10.00.

A BATTERY of diagnostic technics for evaluating particular aspects of children's growth and development is described in detail by the authors, who have been engaged in research on child development for many years. Practical application of the measurements and their interpretation are illustrated by fully documented clinical cases of normal, borderline, and abnormal children. The analysis of data and growth charts related to deviant growth problems should be especially useful. The text is supplemented by some 36 anthropometric tables, 11 height-prediction tables, and 175 charts and figures, an aid to clarification of the information needed by the physician in making clinical predictions. The wide variety of methods and procedures enables the physician to choose one most suitable to a given case. Psychologists, nutritionists, and child welfare workers may also find the book a valuable reference tool.

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The Kingdom Within

By: **Genevieve Caulfield**; edited by **Ed Fitzgerald**

1960. 278 p. Harper & Bros., Publishers, 49 E. 33rd St., New York 16, N.Y. $4.00.

BLIND since infancy, Miss Caulfield has lived an independent and highly satisfying life through her work in Japan as an English teacher and in Bangkok as founder of a school for the blind. From the time she was 17 she knew exactly what she planned to accomplish; discriminatory laws against Japanese children in California roused a desire to go to Japan as a teacher. Her education completed, she set forth alone, without the backing of any organization, to realize her goal. Her life there was enriched by the adoption of a Japanese "daughter" who later assisted in work with the blind in Bangkok. In 1958

she was invited to open a similar school in Vietnam. Miss Caulfield periodically returns to the United States to visit and conduct lecture tours but her heart—and her work —remain in the Orient.

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Lump Sum Redemption Settlements and Rehabilitation; A Study of Workmen's Compensation in Michigan

By: **James N. Morgan, Marvin Snider,** and **Marion G. Sobol**

1959. 151 p. tabs. Published by Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Mich.

WORKMEN'S COMPENSATION laws permit an injured worker to elect to receive a lump sum redemption settlement in place of weekly benefits and medical care. Should he do so, the employer's total obligation for future medical care and payments to the worker is discharged. This study was an attempt to determine the effects of such a practice on workers injured in Michigan and the degree to which it facilitates or hinders medical recovery and return to work. Records of lump sum settlement recipients were compared with those of persons receiving paid medical care and weekly medical benefits. Analysis of personal interviews with injured workers showed that, from the worker's viewpoint, the primary objectives of the Workmen's Compensation Act are not being adequately fulfilled through such practice. Lump sum settlements do not appear to aid in rehabilitation of injured workmen. It is recommended that the needs of injured workers be met through services from agencies without financial interest in the outcome of the problem.

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Parkinson's Disease; Its Meaning and Management

By: **Lewis J. Doshay, M.D., Ph.D.**

1960. 224 p. figs., charts. *(Keystone Books in Medicine)* Paperbound. J. B. Lippincott Co., E. Washington Square, Philadelphia 5, Pa. $1.45.

DR. DOSHAY has made a definite contribution to better understanding of Parkinson's disease with the publication of a popular book on the subject. He reviews current concepts of cause of the disease, the significance of symptoms, and the benefits of various forms of treatment. The physician treating such patients can make good use of the authoritative information by recommending that patients read this book. The latter part is devoted to discussions of what the patient can do to help himself, through work, exercise, and the continuation of everyday activities. Practical exercises for correcting faulty balance, impaired speech, and the rigidity accompanying the disease are described. Families are advised on ways of helping the patient. Community resources and action could improve the lot of these patients by more attention to their specific needs.

National Society for Crippled Children and Adults
2023 W. Ogden Ave.
Chicago 12, Ill.

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Proceedings of the Third Medical and Educational Conference of the Australian Cerebral Palsy Association . . . Perth . . . 27th-30th September, 1957

Edited by: **J. T. Mitchell**

(1959?) 205 p. charts. Published by the Spastic Welfare Assn. of Western Australia for the Australian Cerebral Palsy Association and available from World Commission on Cerebral Palsy, % International Society for the Welfare of Cripples, 701 First Ave., New York 17, N.Y.

TOPICS DISCUSSED at the Conference were: The cerebral palsied child and his family.—Cerebral palsy in the under three years of age group.—The brain injured child.—Realistic educational planning for the cerebral palsied.—The application of the therapies to cerebral palsy.—The use of closed plaster of Paris in spastics.—Employment of cerebral palsied persons.—Pre-vocational training.—The practice of teaching miscellaneous pre-vocational subjects.—Clinical demonstration of types of cerebral palsy.—The emotional needs of the handicapped child.

Participants were physicians, psychiatrists and psychologists, therapists, teachers of special education, and vocational rehabilitation and employment personnel in government agencies. The Australian Cerebral Palsy Association is a voluntary organization whose membership is composed of organizations providing separate specialized facilities for treatment, training, and welfare of the cerebral palsied.

Digests of the Month

Journal articles, chapters of books, research reports, and other current publications have been selected for digest in this section because of their significance and possible interest to readers in the various professional disciplines. Authors' and publishers' addresses are given when available for the convenience of the reader should he desire to obtain the complete article or publication. The editor will be most receptive to suggestions as to new publications warranting this special attention in Digest of the Month.

224

V. Rehabilitation of the Physically Handicapped

By: **Konrad Persson**

In: *Social Welfare in Sweden; A Summary Account, p. 22-28.* 1959. 51 p. tabs., graphs. Stockholm, Sweden, Föreningen för främjande av Pensionsstyrelsens verksamhet, Stockholm 7, Sweden. Available in the U.S. from International Society for the Welfare of Cripples, 701 First Ave., New York 17, N.Y. 50¢.

THE RESTORATION of work capacity and placement in employment of handicapped persons is very important in a social insurance system such as Sweden's, which stipulates that the right to an invalidity pension, sickness allowance, or preretirement pension must be related to capacity for work. It behooves the authorities to prevent inability to work or to assist in employment placement that makes good use of a person's residual skill. Rehabilitation goes much farther—it is also concerned, in total or near-total disability, with teaching the daily functions of living. Since the national pensions scheme grants special benefits to those under 60 years of age who cannot take care of themselves, it is economically sound for the authorities to use rehabilitation measures even if earning power is not restored.

In Sweden rehabilitation is unitary but has two interlocking approaches, the medical and the vocational aspects of rehabilitation. Organised in 1914, the National Pensions Board in 1916 opened hospitals or medical wards of its own or in collaboration with county councils and local authorities. Objectives of this programme were to prevent invalidity and pertained to illnesses that, because of their protracted nature, could not be treated for sufficiently long periods at general hospitals. The Board hospitals provided ordinary medical care and occupational therapy, and special measures were taken to restore patients to employment. To handle handicapped such as the crippled, the Board became associated with specialized institutions that gave vocational rehabilitation.

The programme also helped the handicapped become self-employed. Board grants were made for the purchase of automobiles or other motor vehicles when needed for transportation between home and work. Even those who could find work were trained, for it was consistently shown that the better educated obtain employment more readily and hold on to their jobs longer. The Board was also interested in handicapped not treated by them but who, it could be assumed, would become incapacitated for work unless action was taken to make them self-supporting.

In 1952 most of the Board's vocational training activities were transferred to the Labour Market Board, which already dealt with similar training of the nonhandicapped and with the recruitment and placement of workers. County labour committees work locally. The Pensions Board continues to train claimants or recipients of invalidity pensions, sickness allowances, or other national pension benefits. It also awards grants to the handicapped to set up businesses or purchase vehicles, functions that in 1959 were also given the Labour Market Board, which uses state grants furnished the Pensions Board. The municipality often helps in these expenses. Both the state and the municipality pay the costs of training or retraining.

Industrial rehabilitation and sheltered employment are largely the responsibilty of the county councils and local authorities and, in some cases, of private organisations, which receive public subsidies. Special industrial workshops are operated in most counties and metropolitan cities. Sheltered workshops are frequently operated along with the workshops, and a few firms have such facilities. However, facilities do not quite meet the need nor are there enough centres to distribute work to be done at home. Stockholm has a state "occupational clinic," staffed with specialists who thoroughly test a handicapped person's qualifications for different kinds of work. The clinic tries to place the person or arranges for continued remedial measures (industrial rehabilitation, retraining, or vocational training).

General hospitals, under local government, have expanded tremendously; it is planned that they take over the National Pensions Board's medical programme. The Board must retain its own hospitals, especially for cases that are difficult to prognose and for "dynamic" rehabilitation. A Board hospital located at Are, which has a dry, salubrious climate, runs a mechanical trade school, mainly intended to train young persons with asthma. At Tranas, a Board hospital with a long-standing occupational therapy programme has a machine workshop set up for employment-testing and industrial rehabilitation. The work is prescribed and supervised by the physicians and is directed by the manager.

We have tried to carry out the principle that productive

work is the best remedy, much better than occupational therapy. The side-by-side location of medical and training facilities at the Board's own hospitals means that a large part of the rehabilitative work can be carried out integrated and controlled by hospital physicians. The value of unified procedures is brought home to both doctors and other staff. It is extremely important to the Board, which must decide for or against the granting of invalidity pensions or sickness allowances, for borderline cases to be given simultaneous medical and vocational judgment. Production at the workshops is based on orders from manufacturing firms and other outside customers.

Other plans of the Board are to provide for, in collaboration with the medical colleges and university hospitals, comprehensive rehabilitation of the physically handicapped in general (including somatic cases with neurosis). The underlying idea is to combine the medical and vocational, as much as possible, under one roof. A programme along these lines would do much to overcome the distrust of the handicapped person's talent still prevalent in all countries, for these institutions could provide research and experimentation and demonstrate convincing results of the wider benefits in store. The active cooperation of industry and of labour and management organizations would be sought.

With the coming into force of the Social Assistance Act on January 1, 1957, much wider scope was allotted to preventive measures, including rehabilitation. Action for rehabilitative purposes is permitted at an early stage. In the past the Swedish national health insurance and industrial injuries insurance did not provide particularly for rehabilitation. It is intended that measures in both of these be intensified. This is especially important in health insurance, for cases that timely rehabilitation can prevent becoming worse are seen early.

However, in Sweden, except for special groups of handicapped, there are no comprehensive rehabilitation centres, covering the whole rehabilitation area and with facilities for research, education, and public relations. Rehabilitation is inadequately provided for in the fields of education and scientific research, and it is not a universal part of the medical services. A change for the better is essential. Doctors must be thoroughly familiar not only with the social insurances but also with rehabilitation and its possibilities. Both doctors and social service staffs must be able to study and get experience in rehabilitation, especially in regard to its being a unified procedure. Generally speaking, the medical side of rehabilitation is rather underdimensioned, also in countries where the vocational part is fairly well developed. The social insurance system and the social welfare scheme should tend to promote rehabilitation, not hamper it. Rehabilitation should be so structured as to fit smoothly into the overall picture of social insurance and social welfare.

225

Energy Costs of Work and Work Evaluation in Heart Disease

By: **Herman Hellerstein, M.D.** *(Western Reserve University School of Medicine, Cleveland 6, Ohio)*

In: *The Employment of the Cardiac, p. 70-81.* Proceedings of Symposium, Buffalo, N.Y., March 20, 1959, sponsored by Heart Association of Erie County and Chronic Disease Research Institute; edited by Robert M. Kohn, M.D. 1959. 112 p. Mimeo. Heart Association of Erie County, Ellicott Square, Buffalo 3, N.Y. $1.50. (See #217, this issue of *Rehab. Lit.*)

IN NINE YEARS of operation of the Cleveland Work Classification Clinic (partly supported by funds from the Cleveland Area Heart Society), we have studied 1,700 patients. We soon became discontented with the results of clinical evaluation alone and especially dissatisfied with the prejudices, fears, and anxieties about cardiacs we had inherited from our elders. The accuracy of clinical impressions is reduced by inability or failure to evaluate emotional status, an excessive limitation of the patient's activities before a fitness test, recency of convalescence, or the presence of other disease. We moved our laboratory into the job location to accumulate *facts* about work and the cardiac.

One can evaluate fitness by learning how the subject responds to everyday activities in terms of energy cost. Caloric cost is derived from measuring the oxygen consumed per minute. In the average person, one liter of oxygen is equivalent to 4.8 Cals. While seated, about 1 Cal. is expended per minute. Washing, shaving, dressing, or driving a car takes about 2.5 Cals. Gardening or golfing without an electric cart on a not especially flat course takes 4 or 5 Cals. Level walking at 2 to 4 miles an hour takes 3 to 5 Cals. a minute. Yardwork takes up to 6 or 7 Cals. a minute.

Observing a patient at home can give a physician a good idea of ability to expend energy, but it is still only an impression. After a heart attack, a person can do considerable work—not the 26.5 Cals. per minute that champion athletes can do or the 18 that healthy untrained men can do, but some cardiacs have expended 15 Cals. per minute at the Y.M.C.A. Of subjects recovered from an infarct, over a third could expend 9 to 10 Cals. in steady-state exercise and the rest 5. History and observation provide a pretty good subjective measure of function and fitness.

The therapeutic and functional classifications of the American Heart Association correlate well with prognosis, morbidity, mortality, employability, and physical fitness, as determined by treadmill or other exercises. Bruce's study found good correlation in about 84 percent. This classification correlates well with cardiacs' employment

percentages: of those IA or IB on the initial visit, about 70 percent were employed; in category II, 39 percent; III, 22 percent; and worse than III, 14 percent.

Methods that are codifications of impressions are not enough, ability must be measured objectively. Maximal work tests requiring 10 to 20 Cals. per minute or those requiring submaximal effort of 9 to 10 are excessive; our studies of American industry, including the steel mill, revealed no one expending maximum amounts and a rare worker entering the submaximal range for even the briefest period. Such loads are unrealistic in testing the cardiac's work capacity. The two-step Master's test and others require much more energy (6-8 Cals. per min.) than does modern factory work.

In the standard two-step test, a person who has had a myocardial infarction can perform indistinguishably from a normal person and not show evidence of "coronary insufficiency" by our methods of measurement. Since exercise tests do not measure "coronary sufficiency" but rather the sufficiency of circulation and fitness, we have in the past 9 or 10 years measured multiple circulatory parameters to assess response to effort. The product of heart rate and blood pressure measurements gives a first approximation of how much oxygen the myocardium is using. Heart output can be assessed crudely in several ways, by the Remington pulse pressure method and by dye dilution. Of course, electrical activity is detected best by electrocardiogram. Heart work done can be calculated in estimated oxygen consumption by Sarnoff's systolic tension-time index or Katz's mean tension-time index, basically the product of mean blood pressure and heart rate.

We consider response to exercise abnormal if blood pressure and heart rate fail to recover within 10 points 2 minutes after exercise, heart rate is over 135 beats during exercise, blood pressure fails to rise 10mm. Hg or more after exercise (indicating failure to increase cardiac output), there is a large oxygen debt, and electrocardiographic changes and symptoms appear. The Flack test, a Valsalva maneuver, has been valuable to us. The subject blows into a manometer and tries to raise the pressure to 40 or 50 mm. Hg. Nine or 10 beats after straining stops, the heart rate should slow and the pulse pressure fall. It is a simple static test of great effort but little caloric expenditure. Of those who had an abnormal Flack test, 76 percent had an abnormal exercise test; 66 percent of those who had normal Flack tests had normal electrocardiographic tests.

Early in our experience in Cleveland we found we had to augment these tests to index employability. The physical, environmental, and emotional facets of a job can be assessed. Physical effort can be expressed in foot pounds, calories, patterns of activities, skills, and dexterity. External environment may be described as to heat loads, dust, and noises. We analyzed an entire day's work of cardiacs and matched controls in varied occupations, studying time and motion, pulse rate, blood pressure, respiratory rate, oxygen consumption, and such things as changes in blood fats. Two types of factory activity patterns appeared: steady low effort and low effort with intermittent peaks. A planning clerk uses about 2 Cals. with no peak efforts. His wife uses about 6 or 7 in making beds. A fireman averages about 3 or 4 Cals. but has a few peaks, up to 6 Cals. a minute for 10 or 15 minutes of the day.

In our studies in modern factories, the average caloric expenditure ranged from 1.5 to 2.2, varying in general directly with the mass of skeletal muscles used. Warehousemen use more energy than machine operators. Steel mill control operators averaged about 2 Cals. a minute, inspectors 2.2, and foremen about 3 or 4 (they walk more).

The design of work is important. A subject lifting a metric ton a standard height of 1 meter by lifting 10-lb. weights will expend 50 Cals. per ton, but if he lifts 50-lb. weights he expends only 20 to 22 Cals. per ton, since fewer body motions and less walking back and forth are involved. Often minor innovations could be made that would enable a cardiac to do a job.

The American worker and the worker in mechanized European industry work only about 45 to 65 percent of their shift. Labor apparently has fought for job ratings that have physiological connotations. The heavier the job, the longer the recovery period allowed; the goal is to keep the average energy expenditure well below 5 Cals. per minute. The average human cannot expend more for long during the working day without showing strain. A 52-year-old obese fireman with arteriosclerotic heart disease expended 6.6 Cals. for 6 minutes of the working day by handling a poker weighing 26 lbs. Other activities, pushing buttons, resting, or standing around, required 1.3 Cals. a minute, almost as if he were asleep.

Both normals and cardiacs were found doing work in environments that were intolerable to some of our students and technicians. Hatch and Belding's index expresses the values of heat production and loss—heat stress of 100 indicates the production of 1 liter of sweat per hour. A first helper on a steel mill's open hearth expended 4 Cals. for 3.5 minutes of the day, but his pulse went up to 150 beats per minute because of heat stress. On the pouring platform, the pourer controls a lever allowing metal to flow from a ladle filled with many tons of molten metal. The heat stress is tremendous, about 170 Hatch and Belding units, and the pulse rate rises to 130 per minute, yet the pourer expends very little oxygen, about 2 Cals. per minute. One of the heaviest jobs in terms of calories and heat stress is preparing the trough in the blast furnace area for metal to flow from, requiring about 6 Cals. per minute. The pulse rate is about 140 beats.

It is difficult (but so glibly done in court) to judge what is ordinary or extraordinary activity—the requirement may be ordinary, but the response extraordinary. A desk job may have ordinary physical requirements, yet incidental argument may increase caloric, pulse, and blood pressure values considerably. We consider strain to be shown by a rising pulse rate during the day, a prolonged period for the pulse rate to recover, an excessive heart rate during peak effort, marked changes in blood pressure or in respiration, and a rising energy expenditure at rest during the day. Other terms should also be used to characterize strain.

Changes in heart rate alone and in the electrocardiogram occurred about as often in normals as cardiacs. The resting oxygen consumption of both showed no significant change before and at the end of the work shift. Early in the shift the pulse rate shows a maximum rise, which we believe is an anxiety reaction in anticipation of effort.

Internal environment due to emotions is important. In a subject, discussing marital difficulties was equal in cost to performing Master's two-step test. Surgeons while operating and expending 1.8 Cals. per minute had emotions that resulted in a myocardial consumption that was greater than they experienced while expending 5 to 6 Cals. on a treadmill.

The cost of work should be analyzed more completely than merely in terms of heart rate or calories. Changes in various parameters of circulation can be produced by various factors. Heart disease will influence the heart rate response, blood pressure response, an electrocardiogram. Emotions can do the same thing. Heat can change the heart rate but does not alter the blood pressure very much. One has to know the cost and what the person pays for it. The load and the response must be measured.

A physician, when trying to decide on a suitable job for a cardiac, must know job requirements, personal response, satisfaction offered in status or remuneration, and future opportunities. Considered should be the presence of signs and symptoms, objective physiological measurements on the job, the individual's emotional adjustment, and his productivity. The cardiac must be able to produce and produce safely. He must have a work record equivalent to a noncardiac's. Patients with heart disease have a multiplicity of needs. All need reassurance; we have found 80 percent have emotional disurbances. Job transfer or modification is needed by 20 percent and vocational counseling by 13 percent of those who cannot continue their old jobs. One must have information about the whole person. This applies to the evaluation of the work capacity of the person with heart disease.

Abstracts of Current Literature

This abstracting section, together with other numbered references indexed in this issue, serves as a supplement to the reference book Rehabilitation Literature 1950-1955, *compiled by Graham and Mullen and published in 1956 by the Blakiston Division of McGraw-Hill Book Company, New York. An author index will be found on the last page of the issue.*

ADOLESCENCE

226. Koegler, Ronald R. *(Univ. of California Med. Center, Los Angeles, Calif.)*

Chronic illness and the adolescent. *Mental Hygiene.* Jan., 1960. 44:1:111-114.

Emotional reactions to disability or chronic illness are accentuated during adolescence; this is related to the normal adolescent preoccupation with the body image and the desire to win group approval. The weakening of family ties results in less emotional support for the adolescent and more difficulty in adjusting in a healthy manner to illness. Neurotic decisions and actions of chronically ill adolescents can often be traced to their attempts to erect defenses against anxiety. Where feasible, corrective surgical procedures should be performed before the child reaches adolescence.

AMERICAN HEARING SOCIETY

227. Crayton Walker traces AHS history, gives plan for future expansion. *Hearing News.* Nov., 1959. 27:5:3-4, 12, 16, 18, 20.

In an address presented at the American Hearing Society's 1959 annual conference, Crayton Walker, Executive Director, recalled the sequence of events leading to the founding of the organization, the personalities responsible for its growth, its various activities, and future objectives. The recapping of the Society's history was appropriately planned for the 40th anniversary of the founding of the organization.

AMPUTATION

228. McCollough, Newton C. *(1141 Delaney St., Orlando, Fla.)*

The juvenile amputee; preliminary report of the problem in Florida. *J. Fla. Med. Assn.* Sept., 1959. 46:302-305.

Advances in the management of the juvenile amputee, the use of the team approach, and the problems encountered in juvenile amputees as contrasted with adults are reviewed. A brief statistical breakdown of the causes of amputations in 107 children under 16 years of age currently being served by the Florida Crippled Children's Commission is included.

AMPUTATION—EQUIPMENT

229. Shaperman, Julie Werner *(Child Amputee Prosthetics Project, Univ. of California, Los Angeles 24, Calif.)*

Orientation to prosthesis use for the child amputee. *Am. J. Occupational Ther.* Jan.-Feb., 1960. 14:1:17-23, 26.

Prosthetics training begins with the orientation phase during which both the child and his parents are taught the care and function of the new prosthesis. The occupational therapist's role in training the child to use his prosthesis is discussed in detail. A categorized list of maintenance and repair guides for the therapist and parents is included.

AMPUTATION—EQUIPMENT—RESEARCH

230. U.S. Naval Hospital. Amputation Center, Oakland, California

Construction, fitting and alignment manual for the U.S. Navy soft closed and plastic above-knee socket. Oakland, The Center, 1959. 67 p. illus.

Another of the construction manuals issued by the Navy Prosthetic Research Laboratory at the Amputation Center, U.S. Naval Hospital of Oakland. Features differentiating this type of socket from the conventional "suction socket" are discussed briefly. Step-by-step instructions for tracing and measurements, casting the stump, fabricating the socket, fitting and alignment of the prosthesis are given, with each step illustrated. Includes a list of materials and equipment needed for fabrication, with source of each item.

The manual is issued by Captain Thomas J. Canty, Chief, Amputee Service, U.S. Naval Hospital, Oakland 14, California.

AMPUTATION (CONGENITAL)

231. Farmer, A. W. *(Suite 325, Med. Arts Bldg., Toronto 5, Ont., Canada)*

Congenital absence of the fibula, by A. W. Farmer and C. A. Laurin. *J. Bone and Joint Surg.* Jan., 1960. 42-A: 1:1-12, 22.

Etiology, pathology, diagnosis, and treatment of 32 limbs with congenital absence of the fibula in 24 patients seen at the Hospital for Sick Children, Toronto, are reviewed. The condition is considered a true dysplasia; severe anomalies are also observed in the foot, tibia, and femur. Treatment must be specific for each individual, the authors state, with early amputation whenever shortening of more than three inches is anticipated. A Syme type amputation is recommended. In a discussion of the paper, Dr. T. Campbell Thompson of New York questioned the eventual outcome of Syme amputations performed at an early age in these patients.

ARTHRITIS—EQUIPMENT

232. New York University-Bellevue Medical Center. Institute of Physical Medicine and Rehabilitation

Self-help devices for the arthritic, by Edward W. Lowman; rev. 1959. New York, The Institute, 1959. 149 p. illus. *(Rehab. monograph VI, rev.)*

Originally published in 1954, this revised, enlarged manual now contains nearly 300 special devices, illustrated and described and classified as to use. Many are applicable to other types of severe disability. The appendix contains an index listing source and cost of each device. The manual was revised and reprinted through a grant from The Arthritis and Rheumatism Foundation, which maintains the Arthritis Self-Help Office at the Institute to evaluate new devices as they appear. A monthly flyer *Device News* gives current information on devices as they are evaluated; it is available free upon request to professional personnel working with arthritics and to arthritic patients directly.

Copies of the manual are available at $1.00 each from either The Arthritis and Rheumatism Foundation, Medical Department, 10 Columbus Circle, New York 19, N.Y., or The Arthritis Self-Help Office, Institute of Physical Medicine and Rehabilitation, 400 E. 34th St., New York 16, N.Y.

BLIND—BIOGRAPHY

See 220.

BLIND—EMPLOYMENT

233. Gallagher, Michael A. *(State Council for the Blind, Rm. 128, Health and Welfare Bldg., 7th and Forster St., Harrisburg, Pa.)*

We think it's good business, by Michael A. Gallagher and Norman M. Yoder. *New Outlook for the Blind.* Nov., 1959. 53:9:313-317.

An integral part of over-all services for the blind in Pennsylvania is the vending stand program that seeks to install snack bars offering complete food service to customers but requiring less equipment than a full cafeteria operation. Discussed are choice of locations, selection of operators, and details of operation of the unit (construction design and equipment, financial arrangements with the operator). Experience has shown that the program is a financially remunerative one for blind clients receiving vocational rehabilitation services. Community response has been gratifying.

BRAIN INJURIES—PSYCHOLOGICAL TESTS

234. Cobrinik, Leonard *(323 E. 10th St., New York 9, N.Y.)*

The performance of brain-injured children on hidden-figure tasks. *Am. J. Psych.* Dec., 1959. 72:566-571.

A paper based on a doctoral dissertation, presenting findings of a study to determine possible differences between the performances of normal children and cerebral palsied children on a variety of hidden-figure tasks. Normal children demonstrated superior performance on all tests; performance of both groups increased significantly with age. Those with severe motor impairment were significantly inferior to all other groups. Intelligence-test scores were not significantly related, in this study, to the ability to detect hidden-figures. It is suggested that impairment in hidden-figure performance may be more dependent upon extent than location of the cerebral damage.

See also 303.

BRAIN INJURIES—SOCIAL SERVICE

235. Krupp, George R. *(165 N. Village Ave., Rockville Center, N.Y.)*

The brain-injured child; a challenge to social workers, by George R. Krupp and Bernard Schwartzberg. *Soc. Casework.* Feb., 1960. 41:2:63-69.

The agency social worker provides counseling and guidance for parents of the brain-injured child and direct help for the child, if the agency is equipped to provide the necessary therapy. Appropriate referral to other community resources should be made by the social worker when agency service is unavailable. The authors discuss the medical and psychological aspects of brain injury with which social workers should be familiar in order to formulate a treatment plan.

CEREBRAL PALSY

See 223.

CEREBRAL PALSY—EQUIPMENT

236. Alderman, Margaret E. *(Spastic Children's Clinic and Preschool, Seattle, Wash.)*

An arm-guide for the athetoid. *Am. J. Occupational Ther.* Jan.-Feb., 1960. 14:1:24-26.

Gives a brief review of types of appliances currently used to control persistent abduction and rotation of the humeri in athetoid children. Shortcomings of these methods prompted the author to devise "arm guides" designed to confine the arms to a limited range of motion. Their construction and use are described and illustrated. A year's trial period of this method has confirmed its advantages.

CEREBRAL PALSY—MEDICAL TREATMENT

237. Hyon, M. *(Hôpital Raymond-Poincaré, Garches, France)*

Problèmes diagnostiques et thérapeutiques posés par l'atteinte des hanches chez les infirmes moteurs cérébraux, (by) M. Hyon and G. Tardieu. *La Semaine des Hôpitaux.* Oct. 12, 1959. 35:47:2695-2700.

Cerebral palsied children between the ages of 2 and 10 were the subjects of a clinical study of dislocation of the hip; all were seen at the rehabilitation center of Raymond-Poincaré Hospital, Garches, France. Technics used in diagnosing orthopedic disabilities of the hip are described; findings are summarized with the conclusion drawn regarding treatment. Text of the article is in French.

CEREBRAL PALSY—PSYCHOLOGICAL TESTS

238. Truss, Carroll V. *(Univ. of Miami, Coral Gables 46, Fla.)*

Duration of the spiral aftereffect in cerebral palsy; an exploratory study, by Carroll V. Truss and Robert M. Allen. *Perceptual and Motor Skills.* 1959. 9:216-218.

Previous studies of the spiral aftereffect investigated the possibility of its use to differentiate brain-damaged and nonorganic persons. Several attempts to explain the phenomenon in terms of theories of figural aftereffects suggested its possibilities as a tool to investigate brain

function. This study of duration of the spiral aftereffect in both normal and organic (cerebral palsied) persons revealed that duration was quite variable among those in both groups and appeared to depend in part upon motivation and choice of criterion of termination of the aftereffect. Methods and results of the experimental testing are reported.

CHILD GUIDANCE

239. Bakwin, Ruth Morris *(132 E. 71st St., New York 21, N.Y.)*

Diagnostic approach to behavior disorders in children. *J. Am. Med. Women's Assn.* Sept., 1959. 14:9:786-791.

Woolley Memorial Lecture, presented at the annual meeting, AMWA, June, 1959.

Too frequently in medical and pediatric practice emphasis is on treatment without adequate diagnosis, Dr. Bakwin believes. In the field of psychiatry the attitude is even more evident. The etiology of behavior problems in children should be thoroughly explored to determine all variables of an environmental, psychological, and physical nature that may have contributed to the development of the problems. A variety of behavior disorders is discussed, as well as the prognosis and difficulties in regard to differential diagnosis.

CHILDREN—GROWTH AND DEVELOPMENT

See 219.

CLEFT PALATE

See 273.

CLEFT PALATE—SPEECH CORRECTION

240. Greene, Margaret C. L. *(Stoke Mandeville Hosp., Aylesbury, Bucks., England)*

Speech analysis of 263 cleft palate cases. *J. Speech and Hear. Disorders.* Feb., 1960. 25:1:43-48.

The speech of 263 cleft palate patients attending the Stoke Mandeville Plastic Surgery Clinic over a three-year period was assessed, with results of surgery evaluated. Primary repair of the palate by V-Y retroposition yields good results, with a high percentage of non-nasal speakers. Lateral defects in articulation are still common among patients at this Clinic. Secondary surgical procedures (pharyngoplasties) are not very successful when the palate is scarred and immobile. Speech therapy following the operation can bring about considerable improvement in speech, however. Such operations are more successful when primary repair of the palate has produced a mobile, though short, palate.

CONGENITAL DEFECT—ETIOLOGY

241. Norris, Albert S. *(Univ. of Iowa Med. School, Iowa City, Iowa)*

Prenatal factors in intellectual and emotional development. *J. Am. Med. Assn.* Jan. 30, 1960. 172:5:413-416.

A review of the literature suggests that prenatal environmental factors may influence the emotional and intellectual development of the child. If such relationships can be confirmed, the physician may eventually be able to protect the fetus from the psychophysiological influences that emotional and physical stress exerts. This paper was presented at a Symposium on Childbirth—Progress in Management, held at the 1959 annual convention of the American Medical Association.

See also 254; 286.

CONVALESCENCE—GREAT BRITAIN

242. Great Britain. Ministry of Health

Convalescent treatment; report of a Working Party. London, H. M. Stationery Off., 1959. 48 p. tabs.

A report of a survey of 48 convalescent units and 31 hospitals. Medical aspects, the need for adequate accommodations, defects of existing institutions, and anomalies of administration and finance were the four main categories of problems requiring attention. Section II of the report is a historical review of the early concepts of convalescence and the effects of the National Health Service Act on provision of this type of care. An analysis of convalescent service for London's four metropolitan regions is included. A section is also concerned with care for patients presenting special difficulties, with suggestions for meeting their needs.

Available in the U.S. from British Information Services, 45 Rockefeller Plaza, New York, N.Y., at 59¢ a copy, postpaid.

DANCING

243. Wisher, Peter *(Dept. of Phys. Education, Gallaudet College, Washington 2, D.C.)*

Dance and the deaf. *J. Health, Phys. Educ., Recreation.* Nov., 1959. 30:8:68-69.

Reprinted in adapted form from: Creative dance for the exceptional child. *Health, Phys. Educ. & Recreation for Educators of the Deaf.* Nov., 1959. 3:1:10-15.

A report on the use of dancing at Gallaudet College as a means of increasing the level of communication for deaf students. Perception of visual images is an important factor in all phases of education and daily living for the deaf. By means of visual cues and auditory stimuli, the deaf are taught to perceive rhythm; tactile cues are utilized in a greater degree in the absence of hearing. Dr. Wisher's observations on the value of dancing as a creative outlet for the deaf, as a means of improving speech, and as a means of recreation are offered.

DEAF—ETIOLOGY

244. Pennsylvania Academy of Ophthalmology and Otolaryngology. Conservation of Hearing Committee *(Dr. John T. Dickinson, Chairman, 1400 Locust St., Pittsburgh 19, Pa.)*

Etiologic factors in auditory disorders in children. *Pa. Med. J.* Feb., 1960. 63:2:203-204.

A summary statement on congenital and acquired auditory disorders and the importance of correctly identifying cause of deafness in a child before outlining a rehabilitation program suited to his individual needs.

DEAF—SPECIAL EDUCATION

See 305.

EMPLOYMENT (INDUSTRIAL)

245. Barshop, Irving *(Federation Employment and Guidance Service, 42 E. 41st St., New York 17, N.Y.)*

Policy and practice in hiring impaired workers. *J. Rehab.* Nov.-Dec., 1959. 25:6:23-25.

A summary report of a 3-year research study conducted by Federation Employment and Guidance Service, giving 34 major findings reflecting hiring policies and practices in regard to persons with physical disabilities. The full report was listed in *Rehab. Lit.*, Nov., 1959, #822.

HAND

246. Bell, John L. *(154 E. Erie St., Chicago 11, Ill.)*

Surgical considerations of hand rehabilitation. *Arch. Phys. Med. and Rehab.* Feb., 1960. 41:2:45-53.

In same issue: Evaluation and treatment of lower motor unit lesions involving the shoulder, arm, forearm, and hand, Robert E. Bennett. p. 54-61.—Psychiatric considerations of hand disability, Saul H. Fisher. p. 62-70.

Initial surgery is concerned with primary wound healing; the difficulties of later reconstructive surgery are greater if initial tendon and nerve repairs fail due to unsatisfactory healing. Management of sharp lacerations, crushing wounds, and burns is considered.

Dr. Bennett (*Warm Springs Foundation, Warm Springs, Ga.*) discusses physical methods used in the evaluation of the site and degree of muscle weakness and the three aspects of treatment of nerve damage—medical, physical, and rehabilitative.

Dr. Fisher *(124 E. 65th St., New York 21, N.Y.)* discusses the unique psychological problems caused by disability of the hand. Psychiatric reaction to amputation of the hand or arm, attitudes toward the prosthesis, the phenomenon of phantom limb pain, and reactions provoked by paralysis or deformity of the hand are covered. 20 references.

HARD OF HEARING—EQUIPMENT

247. Sortini, Adam J. *(Hearing and Speech Clinic, Children's Med. Center, 300 Longwood Ave., Boston 15, Mass.)*

Importance of individual hearing aids and early therapy for preschool children. *J. Speech and Hear. Disorders.* Nov., 1959. 24:4:346-353.

Reports a study that compared the effectiveness of early therapy and the prescribing of individual hearing aids for preschool children with results obtained from the late application of hearing aids in school-age children. Parents submitted information in response to questionnaires sent out at six-month intervals during the two-year period of follow-up. Data are given on the amounts of time the aid was used daily, the child's attitude toward wearing the aid, behavioral and personality changes observed in the child, and progress in language development while wearing the aid. Results of the study indicate definite benefits are to be derived from early diagnosis, early therapy, and use of amplification every waking hour in the hearing handicapped preschool child. Even for the great majority of preschool children who cannot be placed in public schools because of severe hearing loss, early amplification and therapy will benefit the child in language development, behavior, and personality. Early diagnosis and fitting of a hearing aid also benefit the parents by helping them to accept the problem at an early stage of the child's development.

HEART DISEASE

248. Gelfand, David *(1722 Pine St., Philadelphia 3, Pa.)*

Factors relating to unsuccessful vocational adjustment of cardiac patients, by David Gelfand (and others). *J. Occupational Med.* Feb., 1960. 2:2:62-70.

Technics and findings of a detailed study of 117 patients seen in the Cardiac Work Classification Unit of the Heart Association of Southeastern Pennsylvania are discussed. Of this group 38 were considered unsuccessful in vocational adjustment; factors considered responsible for lack of success were of a social or emotional nature.

Other articles in this issue of the *Journal* that relate to heart disease and employment are: An appraisal of the exercise electrocardiogram test: Part I, Applications, significance, and criticisms, Richard Gubner, p. 57-61.—Cardiacs can work, W. A. Irvin, p. 71-75.—Heart disease and motor vehicle accidents, Harold Brandaleone, p. 76-79.

249. Green, Robert S. *(441 Vine St., Cincinnati 2, Ohio)*

Return to work of patients with angina pectoris and/or myocardial infarction, by Robert S. Green and Erna L. Borousch. *J. Am. Med. Assn.* Feb. 20, 1960. 172:8: 783-789.

In same issue: Evaluation of the cardiac patient for work capacity, Joseph G. Benton. p. 790-793.

In more than 13 years' experience at the Memorial Heart Laboratory, St. Mary's Hospital, Cincinnati, the authors state they have never seen a patient with arteriosclerotic disease of the coronary arteries in whom surgery was necessary to control angina. They outline a treatment program aimed at building up collateral circulation in the coronary vessels, anticipating eventual coronary occlusion or excessive demands on the myocardium. Most of the patients treated by this common sense approach have been returned to a full work status.

Dr. Benton *(450 Clarkson Ave., Brooklyn 3, N.Y.)* reviews current studies on the relationship between physical and psychological stress and coronary artery disease; evidence appears to indicate that, with proper job placement and satisfactory mental and emotional states, the cardiac patient can return to productive employment. Both papers were presented at the Symposium on Current Concepts of Heart Disease and Employment, held at the 1959 Annual Meeting of the American Medical Association.

HEART DISEASE—EMPLOYMENT

250. Clark, Richard J. *(15 Dix St., Winchester, Mass.)*

Cardiac rehabilitation for work, by Richard J. Clark and George E. Altman. *Mod. Concepts Cardiovascular Dis.*, Am. Heart Assn. Feb., 1960. 29:2:577-580.

Experiences at the Work Classification Unit of the Massachusetts Heart Association in Boston have shown, over the past 6½ years, that 69 percent of those cardiac patients considered employable have been returned to

work. Administration of the Unit and evaluation technics used are discussed. It is the authors' belief that any well-informed physician can evaluate the extent of cardiac disability and, with the aid of community resources, can help to return the patient to employment.

See also 217.

HEART DISEASE—NURSING CARE

251. Bonney, Virginia *(Dept. of Nurse Education, New York University, New York 3, N.Y.)*

Rehabilitation of the cardiac patient. *Nursing World.* Feb., 1960. 134:2:14-15, 33.

The role of the public health nurse in providing services for cardiac patients following hospitalization covers much more than actual nursing care. She can help patients to combat the psychological effects of limited activity, provide information on physical care, and see that community resources are utilized to meet economic, social, and recreational needs. Knowledge of simple rehabilitation procedures will alert the nurse to procedures especially helpful in hemiplegic patients.

HEMIPLEGIA

252. Harris, Roland *(Devonshire Royal Hosp., Buxton, England)*

Rehabilitation in hemiplegia. *Occupational Ther.* Jan., 1960. 23:1:8-13.

Reprinted from: *Medical Press.* Aug. 20, 1959. 240: 6224.

In same issue: Aid for hemiplegics, B. E. Brocks. p. 24-30. (Reprinted from: *Medical Press.* Sept. 23, 1959)

A general discussion of the causes and prognosis in cerebrovascular accidents, treatment in the acute phase, measures taken to prevent deformity, the assessment and treatment of residual defects, and aspects of a well-planned rehabilitation program.

Dr. Brocks describes a wide variety of aids used in the treatment of hemiplegia to prevent contractures and deformity, to aid locomotion, to encourage self-help activities, and to enable the hemiplegic housewife in caring for her home.

See also 277; 278.

HEMIPLEGIA—PHYSICAL THERAPY

253. Bobath, Berta *(Western Cerebral Palsy Centre, 23 Upper Wimpole St., London, W. 1, England)*

Observations on adult hemiplegia and suggestions for treatment. *Physiotherapy.* Dec., 1959, & Jan., 1960. 45: 12 & 46:1. 2 pts.

A detailed discussion of the clinical features common to most cases of hemiplegia, the rational treatment principles to be applied, and the technics of treatment based on a neurophysiological approach. The importance of sensory disturbances associated with hemiplegia and their influence on spontaneous recovery and recovery as a result of treatment is stressed. Physical therapy technics are based on the theory of inhibiting abnormal reactions and facilitating more normal ones whenever possible. Both sections of the article are illustrated.

HEREDITY

254. McKusick, Victor A. *(Div. of Medical Genetics, Johns Hopkins Univ., School of Medicine, Baltimore 5, Md.)*

Medical genetics, 1958. *J. Chronic Diseases.* Oct., 1959. 10:4:256-363.

With the October issue the *Journal of Chronic Diseases* introduces a new feature that the editors hope will prove a useful and popular addition to its pages. It is envisioned as an annual review of medical genetics, serving as a supplement to textbooks available in the field of general genetics and human genetics. Dr. McKusick and the Staff of the Division of Medical Genetics at Johns Hopkins University have made a critical appraisal of reports issued during 1958. The review covers new books, journals, symposia, congresses, items of historical interest, selected reports on general genetics and on general considerations in human genetics, as well as genetic factors operating in specific diseases and disabilities. Full bibliographic information for each reference is given in the final 18 pages.

HIP

See 237; 277.

HOME ECONOMICS

See p. 110.

HOSPITAL SCHOOLS

255. Proudlove, Winifred *(Ash House Hosp. School, Sheffield, England)*

Illness and personality. *Special Education.* Nov., 1959. 48:5:29-31, 45.

Such natural characteristics of young children as a confiding friendliness, delight in doing, and pride in achievement often seem to be enhanced by the restrictions of hospital life. However, less pleasing traits are also exhibited by hospitalized children; peevishness, listlessness, nervous tension, irritability, temper tantrums, lack of motivation to learn, and withdrawal from reality are only a few of the attitudes that must be corrected if the child is to live a normal adult life. The effects of illness and hospitalization on the physical, mental, and emotional development of children are discussed.

KNEE

256. Lannin, Donald R. *(942 Med. Arts Bldg., St. Paul 2, Minn.)*

Rehabilitation of knee meniscus injury with associated malacia of the patella. *J. Am. Med. Assn.* Nov. 21, 1959. 171:12:1662-1664.

Degenerative changes in the articular cartilage of the patella occur to some degree in almost everyone after the age of 15; athletic injuries particularly are a major factor in the incidence of malacia of the patella. Dr. Lannin cites experiences with 294 arthrotomies performed on athletes; in every case the preoperative diagnosis was a tear of either the medial or the lateral meniscus. Main objective in rehabilitation of the patient with knee injury is the maintenance or restoration of quadriceps strength. Quadriceps exercises should be modified where malacia is present; they should be carried out with a minimum of

flexion of the knee and with a minimum excursion of knee motion. A program for maintenance or restoration of quadriceps strength is suggested.

This article was presented at the Symposium on Athletic Injuries, held during the annual meeting of the American Medical Association, 1959. Other articles in this issue that were also given at the Symposium are: General principles in treatment of injuries to athletes, Don H. O'Donoghue, p. 1656-1659.—Baseball shoulder, Rex L. Diveley and Paul W. Meyer, p. 1659-1661.—Basic areas of prevention of athletic injuries, Robert G. Brashear, p. 1664-1665.—Knee injuries incurred in sport, Thomas B. Quigley, p. 1666-1670.—Athletic training, protective equipment, and protective support, Kenneth B. Rawlinson, p.1670-1672.—Brief maximal isotonic exercises in the treatment of knee injuries, Donald L. Rose, p. 1673-1675.—Report of activity of the American Medical Association Committee on Injury in Sports, Allen J. Ryan, p. 1676-1678.

MARRIAGE

257. Carr, Aidan M.

Marriage and the paraplegic. *Paraplegia News.* Feb., 1960. 14:138:8-9, 11.

Reprinted from: *The Homiletic and Pastoral Rev.*

As a result of correspondence between the president of the Eastern section of Paralyzed Veterans of America, Inc., and Pope John XXIII, concerning the marital life of the paraplegic, *The Homiletic and Pastoral Review* printed this article to aid Catholic priests in counseling paralyzed veterans and civilians. Impotency, but not sterility, is cited as a bar to valid marriage; artificial insemination, from the standpoint of the author, a priest, is not morally permissible in the eyes of the Catholic Church.

See also p. 110.

MENTAL DEFECTIVES

258. Farber, Bernard

Family organization and crisis; maintenance of integration in families with a severely mentally retarded child. Lafayette, Ind., Child Development Publications, 1960. 95 p. tabs. *(Monographs of the Society for Research in Child Development, Ser. no. 75, 1960. 25:1)*

The fourth in a series published by the Institute for Research on Exceptional Children, University of Illinois. Data from individual interviews with 233 families indicate that broad generalizations cannot be applied to all families. By identifying family orientation and other variables over which the family has no control, Dr. Farber has formulated some guidelines for parent counselors. The study was supported by a grant from the Mental Health Fund of the Illinois Department of Public Welfare.

Available from Child Development Publications, Purdue University, Lafayette, Indiana, at $2.75 a copy.

MENTAL DEFECTIVES—EMPLOYMENT

See 302.

MENTAL DEFECTIVES—PARENT EDUCATION

259. Beck, Helen L. *(Mental Retardation Unit, St. Christopher's Hosp. for Children, Philadelphia, Pa.)*

Counseling parents of retarded children. *Children.* Nov.-Dec., 1959. 6:6:225-230.

Parent counseling, a process of casework treatment in clinics serving the mentally retarded, is based on diagnostic findings and aimed at ego support and adjustment to reality. Diagnosis consists of the medical, social, and psychological evaluation of the child's condition, of the needs of the family as a whole, of the parents' personalities, and of their ability to use available services. Technics of social-casework counseling of parents are discussed, along with the objectives to be achieved. Both intensive individual therapy and group therapy are used at St. Christopher's clinic; parents' organizations are used as a resource in working with the mentally retarded but referral must be timed to coincide with parents' readiness to identify with a large group.

MENTAL DEFECTIVES—PROGRAMS

260. Wellin, Edward *(Am. Public Health Assn., 1790 Broadway, New York 19, N.Y.)*

Community aspects of mental subnormality; a local health department program for retarded children, by Edward Wellin (and others). *Am. J. Public Health.* Jan., 1960. 50:1:36-42.

In same issue: Effectiveness of community resources in helping mentally retarded children, Robert W. Deisher and R. S. Justice. p. 43-49.

A description of the functioning of the Cambridge (Mass.) Service for Retarded Children illustrates the benefits derived from location of such services within the local health department. Core services of the unit (diagnostic evaluation and treatment-rehabilitation) are provided by the Service directly; other community resources are drawn upon for specialized diagnostic or corrective services. A case history demonstrates the variety of services provided for a mongoloid child and his family.

Dr. Deisher and Mr. Justice *(Univ. of Washington School of Medicine, Seattle)* discuss a program used for the evaluation of mentally retarded children in the state of Washington. Analysis of the first 148 cases studied yielded information on the effective use of local community resources.

MENTAL DEFECTIVES—PSYCHOLOGICAL TESTS

261. Jordan, Thomas E. *(Ball State Teachers College, Muncie, Ind.)*

The achievement motive in normal and mentally retarded children, by Thomas E. Jordan and Richard deCharms. *Am. J. Mental Deficiency.* Nov., 1959. 64:3: 457-466.

Previous research and studies on motivation in school performance are reviewed briefly, as well as the measure of motivation developed by McClelland (and others). The present study was based on the hypothesis that mentally retarded children would show less achievement motivation than normal children; it was also believed that mentally retarded children trained in special classes should show less anticipation of failure than those who remained in classes with normal children. The relationship between intelligence and achievement motivation was investigated. A practical issue was the question of whether the *n* Achievement measure, as developed by McClelland, could predict school achievement at a significant level. Methods of the study and the findings are reported. It is suggested

that mentally retarded children are exposed to atypical child-rearing practices that do not stress independence training in early childhood, a possible explanation for lower *n* Achievement scores found among the groups tested. Achievement motivation did not appear to be related to intelligence.

262. Tobias, Jack *(575 Grand St., New York 2, N.Y.)*

Evaluation of vocational potential of mentally retarded young adults. *Training School Bul.* Feb., 1960. 56:4: 122-135.

Evaluation tests used at the Sheltered Workshop and Training Center, operated by the Association for the Help of Retarded Children, are described. The seven tests were developed in an attempt to identify factors inhibiting success in rehabilitation; their usefulness as prognostic indicators of vocational adjustment in the mentally retarded was adequately demonstrated. The study was conducted under a grant from the Office of Vocational Rehabilitation (Special Project #11).

MENTAL DEFECTIVES—SPECIAL EDUCATION

263. Connor, Frances P. *(Mental Retardation Project, Columbia Univ. Teachers College, New York, N.Y.)*

Opinions of some teachers regarding their work with trainable children; implications for teacher education, by Frances P. Connor and I. Ignacy Goldberg. *Am. J. Mental Deficiency.* Jan., 1960. 64:4:658-670.

Data submitted by 92 teachers of "trainable" mentally retarded children in public and private day and residential schools are analyzed in regard to pupil characteristics, program objectives, and teacher education needs. Findings show that present policy governing admissions, screening, and class grouping is vague. More adequate interpretation of diagnostic findings, program planning, and teacher training to meet the needs of a multiply handicapped group of children are needed, as well as improvement in school facilities and equipment.

264. Wallace, Helen M. *(U.S. Children's Bureau, Washington 25, D.C.)*

School services for mentally retarded children in urban areas. *Am. J. Mental Deficiency.* Jan., 1960. 64:4:679-688.

A summary and discussion of data obtained through a questionnaire survey of health officers and superintendents of schools in the 106 cities of the United States having populations exceeding 100,000. A wide variation of services, policies, and personnel was evident. Suggestions are made for extending and improving services to meet the complex needs of these children and their parents in all urban areas. A similar analysis of services to children with rheumatic fever or heart disease appeared in *Public Health Reports,* Dec., 1959 (see *Rehab. Lit.,* Mar., 1960, #210).

See also 215; 269; 300; 308.

MENTAL DISEASE

265. Evans, Anne S. *(Massachusetts Mental Health Center, Boston 15, Mass.)*

The family as a potential resource in the rehabilitation of the chronic schizophrenic patient, by Anne S. Evans and Dexter M. Bullard, Jr. *Mental Hygiene.* Jan., 1960. 44:1:64-73.

Families of 24 patients undergoing treatment at the Massachusetts Mental Health Center were interviewed by psychiatric social workers. Lower-income families were found to be more optimistic about the patient's chance for recovery. Findings as a whole suggest increased use of psychiatric social workers and community resources in rehabilitating chronic schizophrenics.

MENTAL DISEASE—EMPLOYMENT

266. Durling, Dorothy *(Wrentham State School, Wrentham, Mass.)*

State hospitals make a new start in vocational rehabilitation. *Mental Hygiene.* Jan., 1960. 44:1:105-110.

Of the 114 hospitals (out of 215) responding to a questionnaire survey, about half provided some vocational education. Some patients were paid for work at 32 of the hospitals; in 43 hospitals some patients were placed in outside day work. Sheltered workshops were associated with 17 hospitals and 61 provided vocational testing. New programs of vocational rehabilitation have been undertaken recently in 18 hospitals. The total number of patients receiving aid in finding jobs during the last three years was 4,112; only 1 to 2 percent of all those leaving hospitals received this service.

MENTAL DISEASE—RECREATION

267. National Recreation Association *(8 W. Eighth St., New York 11, N.Y.)*

Recreation and psychiatry. New York, The Assn., 1960. 36 p. $1.25.

Four papers by well-known psychiatrists present differing views on the ways in which recreation and psychiatry may interact to the patient's benefit and help to clarify the role of the recreation worker in psychiatry.

Contents: Introduction, Beatrice H. Hill.—Recreation and the social integration of the individual, James S. Plant.—Recreation and mental health, William C. Menninger.—Recreation; a positive force in preventive medicine, Alexander Reid Martin.—How to use recreation activities as a therapeutic tool, Robert J. Campbell.

MULTIPLE SCLEROSIS—SPEECH CORRECTION

268. Matthews, Jack *(Speech Clinic, Univ. of Pittsburgh, Pittsburgh, Pa.)*

Effect of isoniazid on the speech of multiple sclerosis patients, by Jack Matthews, Richard Everson, and Ernest J. Burgi. *J. Speech and Hear. Disorders.* Feb., 1960. 25:1:38-42.

Speech samples of 22 multiple sclerosis patients in Veterans Administration hospitals were compared; 12 of the group received isoniazid, the remainder, a placebo. Data were analyzed as to change in speech from pre-therapy to post-therapy testing. Results indicated no significant differences between the two groups so far as changes in speech behavior were concerned. Isoniazid did not appear to improve speech of multiple sclerosis patients.

MUSIC

269. Anastasi, Anne *(Fordham Univ., New York 58, N.Y.)*

Intellectual defect and musical talent; a case report, by Anne Anastasi and Raymond F. Levee. *Am. J. Mental Deficiency.* Jan., 1960. 64:4:695-703.

A detailed description of a high-grade adult mental defective with exceptional musical talent and superior rote memory of apparently eidetic nature. Observations and results of testing by one of the authors who served as tutor for a two-year period are included. Brain damage in this case appeared to be the result of epidemic encephalitis contracted shortly after his birth. Factors interacting to produce the observed results were deficiency in abstraction resulting from brain damage, auditory hypersensitivity, and the emotional climate of the home.

MUSIC THERAPY

270. Denenholz, Barbara *(98 Woods Ave., Rockville Centre, N.Y.)*

Music as a tool of physical medicine. (18) p. In: *Music Therapy, 1958.* Lawrence, Kan., Natl. Assn. for Music Therapy, 1959. p. 67-84.

Music has been used extensively in psychiatric rehabilitation but little has been written concerning its use in physical medicine as functional therapy. This article by an occupational therapist consists mainly of an extensive chart listing specific musical activities that may be used to help increase mobility, endurance, and coordination in muscle groups. Adaptations in instruments and devices to aid patients in achieving the desired motions are suggested. Copies of the reprint are available from the author at 20¢ a copy.

NEUROLOGY

271. Lin, Tung Hui *(Post-Graduate Med. School, New York Univ., 550 First Ave., New York, N.Y.)*

Results of chemopallidectomy and chemothalamectomy; a study of one hundred cases of parkinsonism with ages over sixty, by Tung Hui Lin and Irving S. Cooper. *A.M.A. Arch. Neurology.* Feb., 1960. 2:2:188-193.

Clinical and statistical data support a belief that good surgical results can be expected in patients of this age group where careful preoperative selection of patients is carried out. In this series good results were obtained in more than 75 percent of those undergoing operation. Average length of hospitalization after surgery was almost double that of younger patients; mortality rate among older patients was 3 percent as compared with 2.4 percent for younger patients.

NUTRITION

272. Phillips, Elizabeth Cogswell *(Visiting Nurse Service of Rochester and Monroe County, Rochester, N.Y.)*

Meals a la car. *Nursing Outlook.* Feb., 1960. 8:2:76-78.

Another article describing the three-year demonstration project of Rochester, N.Y., to provide nutritious meals to older homebound patients. (*See Rehab. Lit.*, July, 1959, p. 209.)

273. Zickefoose, Mayton *(Del. State Board of Health, Dover, Del.)*

Feeding the child with a cleft palate. *J. Am. Dietetic Assn.* Feb., 1960. 36:2:129-131.

In same issue: Rehabilitating a child with a severe feeding problem, Nan Bernstein, p. 131-133.—Home care and feeding of a mentally retarded child, Rosa Adair, p. 133-134.

A report of findings of a study conducted by the Delaware State Board of Health's Cleft Palate-Orthodontic Clinic (see *Rehab. Lit.*, Jan., 1958, #81) to gather information from mothers of children with cleft palate on feeding difficulties of such children. *Feeding Cleft Palate Children,* a Board of Health pamphlet, is used in public health work and by nutrition consultants who help parents overcome feeding problems.

Miss Bernstein *(Dept. of Pediatrics, Univ. of Washington School of Medicine, Seattle)* discusses the case of a 3½-year-old girl whose growth was severely retarded because of poor food intake and frequent infections. Her treatment at the Rehabilitation Center for Children, Buffalo, N.Y., is discussed. Cooperation of the clinic staff, inpatient facilities, and community resources contributed to the child's rehabilitation.

Mrs. Adair *(Dallas City Health Dept., Dallas, Texas)*, as a nutritionist and mother of a severely retarded child, tells how she solved feeding problems.

OCCUPATIONAL THERAPY

274. Keane, Weona

Occupational therapist. *Med. World.* Dec., 1959. 91:6:584, 587-588, 591.

A brief review of the training requirements in Great Britain, types of employment open to therapists, types of activities and the practical objectives of treatment, individual assessment of the patient, and the role of therapists in the sheltered workshop. As in the United States, close cooperation among all members of the rehabilitation team is stressed.

OLD AGE—PROGRAMS

275. Blashy, Manfred R. M. *(V.A. Center, Temple, Texas)*

The challenge of geriatrics; some causes, some remedies. *J. Assn. Phys. and Mental Rehab.* Nov-Dec., 1959. 13:6:173-181, 191.

The population "explosion," changing socioeconomic conditions, and changes in ethical values have had an influence on geriatric care. Dr. Blashy points to the growing social awareness of the problems created and reviews the types of institutions and rehabilitation services that can be utilized. Older facilities for geriatric care should be revitalized through the addition of modern rehabilitation services.

ORTHOPEDICS

276. Holoran, Irene M. *(Orthopaedic Dept., Leeds Gen. Infirmary, Leeds, England)*

Orthopaedic conditions in schoolchildren. *Med. World.* Jan., 1960. 92:1:19-22.

Common orthopedic conditions observed in children of

school age are listed in three categories—those requiring no treatment, others requiring observation during the child's growth, and those demanding early diagnosis and treatment if good functional results are to be obtained. Most anomalies of the feet require no treatment unless painful symptoms appear. Children who have had poliomyelitis or are cerebral palsied need skilled observation to prevent unnecessary deformities and loss of function. Early diagnosis of torticollis, osteochondrosis of the spine or hip, and slipped femoral epiphysis is essential.

277. Stehman, M. *(168, Rue Leon Theodor, Brussels 9, Belgium)*

Les calcifications périarticulaires dans les affections neurologiques; étude comparative des hanches chez 102 patients atteints d'hémiplégie, de sclérose en plaques et de section médullaire. *Acta Orthopaedica Belgica.* 1959. 3-4:207-238.

English title: Periarticular calcifications in neurological diseases. (Text in French)

A report of a comparative study of hips in 102 patients with hemiplegia, multiple sclerosis, or cord section. Prevention of calcification necessitates immediate rehabilitation and early ambulation. It is Dr. Stehman's belief that operative release of the ankylosed joint must be replaced by subtrochanteric osteotomy. Includes an English summary and 103 references.

PAIN

278. French, Lyle A. *(412 Union St., S.E., Minneapolis 14, Minn.)*

Neurosurgical consideration of pain. *Phys. Therapy Rev.* Nov., 1959. 39:11:729-732.

A discussion of the physiological mechanisms involved in pain conduction and the neurosurgical procedures used for relief of pain in various parts of the body. Procedures include sympathetic nerve blocks and sympathectomy, posterior rhizotomy, and cordotomy. The application of each and their advantages and disadvantages are given.

An article on p. 733-737, "Pain associated with cerebral vascular accidents," is comprised of three case histories by Jack M. Hofkosh, Margaret McFarlane, and Wayne Perdue. The use of physical therapy in such cases and the results obtained are discussed.

PARALYSIS AGITANS

279. Doshay, Lewis J. *(710 W. 168th St., New York 32, N.Y.)*

Management of the parkinson patient. *Seminar Rep.,* Merck, Sharp & Dohme Research Lab. Midwinter, 1960. 5:1:9-15.

A general review of current therapy and management of the patient with Parkinson's disease. Differential diagnosis, symptoms of the disease and the complications they cause in management, prognosis, and the various modes used in treatment are discussed. Governmental and voluntary agencies, as well as members of the medical profession, are presently promoting research in prevention of the disease and in improved methods of treatment. Dr. Doshay, an authority in this field, has recently published a popular book on Parkinson's disease.

See also 222; 271.

PARALYSIS AGITANS—OCCUPATIONAL THERAPY

280. Pollard, K. S. *(Frenchay Hosp., Bristol, England)*

Occupational therapy and the surgical treatment of Parkinson's disease. *Occupational Ther.* Jan., 1960. 23: 1:14-16.

In same issue: Parkinsonism and its treatment, D. G. Phillips. p. 16-18.

Describes a series of simple tests given by the occupational therapy department in an English hospital to assess preoperatively and postoperatively the ability of patients with Parkinson's disease. A summary of the assessment technics also reveals a pattern of disability observed in patients following pallidotomy.

Dr. Phillips reviews the symptoms of Parkinson's disease and the advances in treatment, then describes the surgical technic used at Frenchay Hospital for the relief of tremor and rigidity in these patients.

PARAPLEGIA

281. L'Association des Paralyses de France

Ratgeber für paraplegiker. *Pro Infirmis.* 1959/60. 4: 105-130.

In same issue: Einige praktische winke und übungen, U.S. Veterans Administration, p. 131-138. (Adapted from *What's my score?* 1946)

This issue of *Pro Infirmis,* the official publication of the Swiss Association for the Handicapped, Hohenbühlstr. 15, Zurich, Switzerland, is devoted to two translations of guides for paraplegics, translated for the first time into the German language. The translation from *What's my score* extracts only a part of the original manual published in English; it consists mainly of a few of the illustrations on self-help activities (getting in and out of bed, transferring from wheelchair to tub or toilet, entering an automobile), positions for exercising, and correct posture for crutch walking.

282. Norton, Paul L. *(1180 Beacon St., Brookline, Mass.)*

Paraplegia in children, by Paul L. Norton and John J. Foley. *J. Bone and Joint Surg.* Oct., 1959. 41-A:7:1291-1309.

A review of 65 children with gross lesions of the spinal cord, 48 of which were congenital, the remainder, acquired. All were, or had been, patients at the Massachusetts Hospital School over a 10-year period ending March 1, 1958. Follow-up study was made to determine how successful they had been in developing self-sufficiency. Orthopedic aspects of treatment are discussed in relation to their rehabilitation. Independence of young paraplegics appears to be permanent, once it has been achieved. No member of the employed group has regressed to the dependent group. With the resources and skill now available, it appears that rehabilitation of paraplegic children is a practical endeavor; the objective should be total economic and personal self-sufficiency.

See also 257; 276.

PARAPLEGIA—EMPLOYMENT

283. Slipyan, Alvin *(Human Resources Corp., Abilities, Inc., Albertson, N.Y.)*

Effect of competitive industrial activity of the traumatic paraplegic, by Alvin Slipyan and Robert R. Yanover. *Postgrad. Med.* Nov., 1959. 26:5:711-718.

A detailed study of 10 paraplegics employed at Abilities, Inc., a competitive industrial firm founded by Henry Viscardi, Jr. Average duration of paraplegia in the group was 18.2 years, considerably greater than statistics cited from other studies. Analysis of employees' records shows that competitive industrial employment and adequate medical care are beneficial and help to prevent most of the common complications of paraplegia. There were no compensable accidents during time of employment, representing a total of more than 36 years. Absenteeism was held to a low rate. The traumatic paraplegic appears to be a competent, safe worker.

PHYSICAL EDUCATION

284. Fischer, J. A. *(Kent State Univ., Kent, Ohio)*

Helping to solve the social and psychological adjustment problems of the handicapped. *J. Health, Phys. Educ., Recreation.* Feb., 1960. 31:2:35, 75.

Activities of the adapted physical education program at Kent State University are selected for their remedial, therapeutic, recreational, social, and psychological benefits. Activities are individually prescribed to meet the student's needs, capacities, and interests. Excerpts from students' end-of-quarter evaluations of the benefits accruing from the course are included.

POLIOMYELITIS—MENTAL HYGIENE

285. Swartz, Jacob *(Boston Univ. School of Medicine, Boston, Mass.)*

Emotional reactions of patients and medical personnel to respiratory poliomyelitis. *Mental Hygiene.* Jan., 1960. 44:1:97-102.

Emotional reactions of six patients confined to respirators because of bulbar poliomyelitis were studied; anxiety, hopelessness, helplessness, and depression were common and resulted in complaints and constant demands for staff attention. Emotional responses of various staff members ranged from denial of the anxiety inherent in such nursing care, guilt, overprotectiveness of patients, coercive or authoritative behavior, and avoidance of patients when possible. Tensions among staff members also were evident. Regular staff meetings did aid in recognition of ward management problems and patients' reactions but very little change occurred in individual feelings because of the meetings.

PREGNANCY—BIBLIOGRAPHY

286. U.S. National Institutes of Health

Maternal disorders related to fetal stress, perinatal death, and congenital defects; selected references, 1952-58, compiled by Elizabeth Koenig. Washington, D.C., The Institutes, 1959. 33 p. *(Public Health Serv. publ. no. 669; Public Health bibliography ser. no. 25)*

Because of the increased interest in congenital handicaps and their cause and prevention, the Reference Librarian of the National Institutes of Health has compiled a listing of over 400 pertinent references, all published in the English language. Scope of the bibliography is limited to the following subjects: effects of maternal diseases such as diabetes, thyroid dysfunction, myasthenia gravis, lupus erythematosus, sickle cell disease, thrombocytopenic purpura, leukemia, drug addiction, and drug administration. Statistical studies of perinatal morbidity and mortality are also included, as well as studies of cases where infants were normal but the mothers had maternal disorders that might have affected the infant. References are listed by author under each subject division and an author index is provided.

Copies are available from U.S. Superintendent of Documents, Government Printing Office, Washington 25, D.C., at 15¢ a copy.

PSYCHOLOGICAL TESTS

287. Estes, Betsy Worth *(Neville Hall, Univ. of Kentucky, Lexington, Ky.)*

The validity of the Columbia Mental Maturity Scale, by Betsy Worth Estes, Frank Kodman, and Macy Akel. *J. Consulting Psych.* Dec., 1959. 23:6:561.

Using the Wechsler Intelligence Scale for Children as a criterion, the authors made a further test of the validity of the 1954 Columbia Mental Maturity Scale. Subjects were 50 elementary school children in a middle-class suburban school in Kentucky. Results suggest that the CMMS should not be used as a substitute for intelligence tests other than the Stanford-Binet, although the authors believe that it may have limited use when other tests cannot be used.

See also 303.

PSYCHOLOGY

288. Currier, Laurence M. *(950 Holly St., Denver, Colo.)*

The physical therapist and the management of emotional reactions to physical disability, by Laurence M. Currier, Fernando G. Torgerson, and Barbara Robertson Friz. *Phys. Therapy Rev.* Jan., 1960. 40:1:17-29.

An edited summary of a series of seminars held at Brooke Army Medical Center, Ft. Sam Houston, Texas. Emotional reactions of the disabled, the social and psychological forces underlying human behavior, and technics to be employed by the physical therapist were discussed. Specific emotional reactions in patients were illustrated by case presentations; a social worker and psychiatrist contributed suggestions for handling particular situations.

289. Hollinshead, Merrill T. *(Newark Board of Education, 31 Green St., Newark, N.J.)*

The social psychology of exceptional children: Part I, The characteristics of exceptional children. *Exceptional Children.* Nov., 1959. 26:3:137-140.

Dr. Hollinshead notes that most studies of the maladjustments of the physically handicapped were made within the frame of reference of social psychology. He turns his attention to the theory that there are significant life goals, often only partially attained or never attained because of physical limitations. These limitations, he believes, are essentially nonsocial. Problems directly related to physical limitations and restrictions are faced by the cerebral palsied, the blind, the deaf, and those with other handicapping conditions, in their attempts to reach simple, primary goals involving self-help, communication,

and locomotion. The author suggests further research to assess the role of physical factors in the social adjustment of exceptional children. Because of their accessibility to measurement and quantification, these factors provide a reliable source of criterion data.

290. **Levine, Louis S.** *(San Francisco State College, 1600 Holloway, San Francisco, Calif.)*

The impact of disability. *J. Rehab.* Nov.-Dec., 1959. 25:6:10-12.

Consideration of individual reactions to physical disability, the social and economic aspects in relation to disability, the degree of disability, and the age at which disability occurred leads to the conclusion that no simple psychological characterizations of the disabled can be applied to the group as a whole. The role of professional rehabilitation workers in providing information and guidance to overcome disruptive psychological and social effects of disability is discussed.

291. **Raph, Jane Beasley** *(Rutgers Univ. School of Education, New Brunswick, N.J.)*

Determinants of motivation in speech therapy. *J. Speech and Hear. Disorders.* Feb., 1960. 25:1:13-17.

In same issue: Communication in the therapy session; a point of view, Elise Hahn. p. 18-23.

In theory, the values and attitudes that a child brings to the learning process are acquired by the child early in life and are believed to be unresponsive to manipulation or change by formal instruction. Research studies of human motivation have identified motivational variables that may influence the child's response to speech therapy. Implications of the research for facilitating the teaching-learning process are discussed.

Dr. Hahn *(Univ. of California, Los Angeles 24, Calif.)* believes that speech therapy sessions can be planned around realistic procedures that stimulate children's desire to communicate. Winning games and praise from the teacher should not be the only sources of motivation in therapy.

292. **Reynolds, Maynard C.** *(109 Burton Hall, Univ. of Minnesota, Minneapolis 14, Minn.)*

The social psychology of exceptional children: Part III, In terms of the interaction of exceptional children with other persons. *Exceptional Children.* Jan., 1960. 26:5: 243-247.

The use of group "base rates" in making decisions regarding the training, employment, and social participation of exceptional persons is prejudicial to their interests. More research concerning individual differences and abilities could lead to better understanding and acceptance of the exceptional person. A theory of social comparison processes and its possible application to behavior of the exceptional within groups are discussed. This is the third, and last, of a series of papers presented at the 1959 annual convention of the Council for Exceptional Children.

293. **Trippe, Matthew J.** *(Syracuse University, Syracuse, N.Y.)*

The social psychology of exceptional children: Part II, In terms of factors in society. *Exceptional Children.* Dec., 1959. 26:4:171-175, 188.

The social structure of society is studied to determine the pressures within society contributing to deviant behavior; some prevalent social attitudes based on ignorance and intolerance do work to the disadvantage of exceptional children. Achievement of social success by the disabled in a competitive society demands that acceptable goals be recognized in terms of their limitations. Implications of this point of view for the education and motivation of exceptional children are discussed.

See also p. 110.

PUBLIC HEALTH NURSING

294. **U.S. Public Health Service**

Public health nursing service to patients, by Marion Ferguson. Washington, D.C., Govt. Printing Off., 1959. 52 p. tabs. *(Public Health monograph no. 59; Public Health Serv. publ. no. 685)*

Objective data on public health nursing practices and the factors that influence them are analyzed; focus of the study is on the patient and his nursing care rather than on the nurse and her activities. Section V discusses services within diagnostic categories (including chronic disease and orthopedics). 29 pages of tabulated data are included.

Available from U.S. Superintendent of Documents, Washington 25, D.C., at 40¢ a copy.

REHABILITATION

295. **Shands, A. R., Jr.** *(Alfred I. duPont Institute, Rockland Rd., Wilmington 99, Del.)*

The keynote address, Nemours Foundation Conference. *J. Okla. State Med. Assn.* June, 1959. 52:6:370-375.

Presented at the First Oklahoma Nemours Foundation Conference on Handicapped Children in 1959, this address discussed the nature of the Nemours Foundation and its activities, the scope of state services for handicapped children, the elements of a complete service program rendered by an agency, the use of all resources to meet total needs of the child, and the areas of discussion for the four panels participating in the Conference. Topics to be covered included programs for children with convulsive disorders, for the mentally retarded, for special education, for the promotion of mental health and the prevention of behavioral disorders, services for vocational rehabilitation, programs for the cerebral palsied, those with orthopedic handicaps, cardiac problems, or vision handicaps, speech and hearing programs, and cleft palate rehabilitation. Objectives of all conferences sponsored by the Nemours Foundation are the identification of needs, the improvement of services, and the establishment of more economical means for serving handicapped children.

REHABILITATION—CONNECTICUT

296. Better health services for the handicapped child. *Conn. Health Bul.* June & Oct., 1959, Jan., 1960. 73:6 & 10, 74:1. 3 pts.

Contents: Part I, The role of the public health physician in planning with physicians practicing clinical medicine, Martha L. Clifford.—Part II, The pediatrician and clinics for handicapped children, George L. Hamilton, Jr.—Part

III, The nurse as part of the clinic team in the care of handicapped children, Doris Langdon.

Connecticut Health Bulletin is published monthly by the Connecticut State Dept. of Health, 165 Capitol Ave., Hartford 15, Conn.

REHABILITATION—SOUTH AFRICA

297. Maritz, J. S.

Trends in rehabilitation in South Africa. *Rehab. in S. Africa.* Dec., 1959. 3:4:168-176.

In South Africa rehabilitation services had their origin in voluntary organizations. Legislation providing workmen's compensation, unemployment insurance, and sick benefits was passed during the 1940's. The South African Rehabilitation Council, established in 1955, functions under the sponsorship of the Department of Labor. Facilities such as rehabilitation centers, hospital services, special schools for handicapped children, sheltered workshops, homes for disabled and older persons, and vocational rehabilitation services are discussed, pointing out the responsibilities of various government agencies in the provision of services.

REHABILITATION—SWEDEN

See 224.

REHABILITATION—PROGRAMS

298. U.S. Office of Vocational Rehabilitation

New trends in rehabilitation. Washington, D.C., Off. of Voc. Rehabilitation, 1959. 26 p. *(Rehab. Serv. ser. no. 521)* Mimeo.

Contains four papers presented at a symposium held by the Council on Exceptional Children at its 1959 annual convention. Authors represented organizations and institutions conducting research activities under the Office of Vocational Rehabilitation's Research and Demonstration Grant program.

Contents: Developments in providing mental hygiene services for the deaf, Kenneth Z. Altshuler—Sheltered workshops for the mentally retarded as an educational and vocational experience, Max Dubrow.—Personal and social factors influencing employment of the cerebral palsied, Martin Moed.—Vocational counseling of the adolescent cardiac, Frederick A. Whitehouse.

REHABILITATION CENTERS—DELAWARE

299. Vadakin, Charles E. *(Memorial Hospital, Wilmington, Del.)*

Costs to patients are lower in this convalescent/rehabilitation unit, by Charles E. Vadakin and Grace L. Little. *Hospitals.* Feb. 1, 1960. 34:3:35-37.

Describes layout (floor plan included), treatment facilities, and patient-day costs of service at the Eugene duPont Memorial Hospital, a 60-bed convalescent and rehabilitation hospital operated as an adjunct to Memorial Hospital, Wilmington. In operation since September, 1955, admissions have averaged 282 per year and patient days, 17,723 per year. Rehabilitation patients usually occupy one-third of the available beds; a wide range in disabilities treated and in age of patients has been evident.

RELIGION

300. Syden, Martin *(c/o Temple Israel, Jamaica, N.Y.)*

Religious education for the Jewish retarded child. *Am. J. Mental Deficiency.* Jan., 1960. 64:4:689-694.

Describes a special religious education class for mentally retarded children conducted by Temple Israel, Jamaica, N.Y., all of whom, with the exception of one child considered "trainable," are classed as educable. Administration, curriculum, development of a class schedule, and parent education aspects of the program are discussed, with an evaluation of the first year's operation included.

See also 257.

RHEUMATIC FEVER—STATISTICS

301. Saslaw, Milton S. *(Natl. Children's Cardiac Hosp., 4250 W. Flagler St., Miami 4, Fla.)*

Five and ten year follow-up study of rheumatic patients; role of climate and environment, by Milton S. Saslaw, F. A. Hernandez, and Hazel Ellen Randolph. *Am. J. Cardiology.* June, 1959. 3:6:754-757.

Findings on the current medical, socioeconomic, and educational status of former patients of the National Children's Cardiac Hospital, Miami, are reported. Similar rates of recurrence of rheumatic fever, heart damage, and death are available from Boston, New York, Philadelphia, and Iowa City, thus making possible a comparison between the possible effect of temperate and tropical climates on rheumatic fever recurrence. Data were available at the Hospital on 92 patients from the five-year group and on 41 of the 10-year group. In the combined groups, the death rate was found to be less than 7 percent. Of the 124 survivors for whom there is information, 16 percent had recurrences; more than minimal heart damage was observed in only 31 percent of the survivors. This incidence of permanent heart damage in the follow-up groups provides a rate about half that observed in other geographical areas. Living in a tropical climate appears to be a protection against recurrences of rheumatic fever.

SHELTERED WORKSHOPS

302. DiMichael, Salvatore G. *(U.S. Off. of Voc. Rehabilitation, Washington 25, D.C.)*

Vocational diagnosis and counseling of the retarded in sheltered workshops. *Am. J. Mental Deficiency.* Jan., 1960. 64:4:652-657.

The phenomenal growth of sheltered workshops for the mentally retarded within the past 10 years calls for an evaluation of trends in vocational diagnosis and counseling methods employed by the workshops. Dr. DiMichael made a study of the progress reports of 11 major projects serving the retarded, all of which received financial support through the Vocational Rehabilitation Program. The findings have implications for administration of workshops and for improvement of services.

SOCIAL MATURITY—PSYCHOLOGICAL TESTS

303. Iscoe, Ira *(Dept. of Psychology, Univ. of Texas, Austin 12, Texas)*

A profile for the Vineland Scale and some clinical applications. *J. Clinical Psych.* Jan., 1960. 16:1:14-16.

A description of a profile devised to provide a more meaningful interpretation of data obtained from administration of the Vineland Scale. Use of the profile should be especially helpful, the author states, with cases of mental retardation, brain injury, or physical handicap since it provides a baseline against which to judge future growth in personal-social competence.

SPECIAL EDUCATION

See 216; 218.

SPECIAL EDUCATION—SWITZERLAND

304. Taylor, Wallace W. *(New York State University Coll. for Teachers, Albany, N.Y.)*

The education of physically handicapped children in Switzerland, by Wallace W. and Isabelle Wagner Taylor. *Exceptional Children.* Dec., 1959. 26:4:208-219.

The last in the authors' series of articles on special education provisions in various countries of Western Europe (for previous articles, see *Rehab. Lit.,* July, Aug., Nov., and Dec., 1959, #594, 685, 865, and 943, also Sept., 1959, p. 259, and Jan., 1960, #66). The entire report, covering 21 nations, is available in book form from the International Society for the Welfare of Cripples, 701 First Ave., New York 17, N.Y., at a prepublication price of $3.00. (Following publication the cost will be $3.50.)

SPECIAL EDUCATION—EQUIPMENT

305. Falconer, George A. *(Illinois State Normal Univ., Normal, Ill.)*

Teaching machines for the deaf. *Volta Rev.* Feb., 1960. 62:2:59-62, 76.

A discussion of various teaching machines used in education of the deaf and the advantages their use offers to both the teacher and the deaf child. A mechanical device constructed by the author for teaching word recognition to the young deaf child is described. Results of a study, testing the effectiveness of the device, are included.

SPEECH CORRECTION

See 291.

SPEECH CORRECTION—U.S.S.R.

306. Black, Martha E. *(Illinois Off. of Public Instruction, 304 State Office Bldg., Springfield, Ill.)*

Speech correction in the U.S.S.R. *J. Speech and Hear. Disorders.* Feb., 1960. 25:1:3-7.

From a collection of papers presented at a speech correction convention in Russia and from discussions with administrators of special education programs at the Institute of Defectology in Moscow, the author offers her observations of speech correction programs available in that country. Although closely resembling speech work in the United States, Russian programs tend to have a mechanistic approach to therapy; this is offset, however, by the application of modern educational principles.

STUTTERING

307. Wingate, M. E. *(1320 Campus Parkway, Seattle 5, Wash.)*

Calling attention to stuttering. *J. Speech and Hear. Research.* Dec., 1959. 2:4:326-335.

A report of a study testing the hypothesis that stutterers would actually stutter less under conditions in which they were made aware of their stuttering. Experimental conditions were devised so that subjects communicated verbally to another person, a situation more closely approximating real-life situations than reading a paragraph of material. Findings appeared to indicate that the decrease in stuttering obtained under the experimental conditions reflected the subjects' assuming a set to speak without stuttering (a set to avoid speaking nonfluently). Subjects were able to maintain this set throughout the eight readings and were able to improve their performance even though attention was called to their stuttering. It seemed to make little difference whether attention was called to stuttering when it first appeared or after it was completed. The study has important implications regarding the theory that stuttering reflects avoidance behavior, specifically avoidance of stuttering or avoidance of nonfluency.

VOCATIONAL EDUCATION

308. U.S. Office of Vocational Rehabilitation

Preparation of mentally retarded youth for gainful employment; a study sponsored jointly by the U.S. Office of Education, the . . . and the Project of Technical Planning of the American Association on Mental Deficiency. Washington, D.C., Govt. Print. Off., 1959. 96 p. *(Bul. 1959, no. 28; Rehab. Serv. ser. no. 507)*

As educational programs for retarded youth develop, the need to emphasize preparation for employment becomes increasingly apparent. Section 1 reports the conference held in Columbus, Ohio, March 6-7, 1958, with the AAMD Project Staff as host, which was concerned with school and community programs for educable adolescents capable of entering competitive employment. Section 2 describes several local programs illustrating cooperative action among public schools and vocational rehabilitation and other community agencies.

Available from U.S. Superintendent of Documents, Washington 25, D.C., at 35¢ a copy.

VOCATIONAL GUIDANCE

309. McPhee, William M. *(Univ. of Utah, Salt Lake City, Utah)*

Success and failure in vocational rehabilitation, by William M. McPhee and Frank L. Magleby. *Personnel and Guidance J.* Feb., 1960. 38:6:497-499.

Data from a research project under OVR support, conducted cooperatively by the University of Utah Graduate School of Social Work and the Montana State Bureau of Vocational Rehabilitation in 1958, are analyzed and reported here. Records of those in substantial, unsubstantial, and minimal employment groups were compared.

WORKMEN'S COMPENSATION

See 211.

American Hearing Society Appoints New Assistant Executive Director

JAMES C. TEEGARDEN on February 15 assumed the position of assistant executive director for the American Hearing Society, 919 18th St., N.W., Washington 6, D.C. For the past two and one-half years, Dr. Teegarden had been supervisor of clinical services with the V.A. Benefits Office in Washington. He majored in hearing and speech at the University of Indiana, graduating in 1950. Dr. Teegarden also obtained an M.A. degree from the University of Maryland in 1951 and his Ph.D. degree from Purdue University in 1957.

City College Conducts Work Survey of Handicapped Alumni

THE HEALTH GUIDANCE Board of the City College of New York recently completed a questionnaire survey of how graduates with physical impairments in the classes of 1956, 1957, and 1958 have fared in the job market. Results of the survey were reported by Margaret E. Condon, Ed.D., Counselor to Physically Handicapped Students.

Of a total mailing of 65 forms to alumni, 45 replies were received. Thirty-four alumni were employed full time, 33 of these having had some graduate work. Another 2 were members of the armed forces; one, an inspector, did not graduate; 3 others were studying full time. One was a housewife; one had since died; and 3 were unemployed. The handicaps represented were: blindness (9); heart condition (6); cerebral palsy (1); defective hearing (4); defective vision (8); diabetes (7); orthopedic conditions (3); post-tuberculosis (4); double crutch poliomyelitis (2); and postpoliomyelitis (1).

The 34 employed full time represented all the types of impairment and presented a work picture as varied as that of the nonhandicapped. Sixteen had obtained their work by direct application, 10 through the college placement service, and the remainder by various other means. Twenty-eight of the graduates were employed with no delay; the others waited from 1 to 4 months. Twenty-five of these stayed with the first job; 7 were on their second job.

All those who had done graduate work stated that a degree was a prerequisite for their positions and that the work involved was related to their college major. The 34 working alumni averaged $320.00 per month. Some, chiefly engineers, averaged $580.00. The two serving in the armed forces lowered the average.

Twenty-three of the total in the study stated their handicaps had been no obstacle in obtaining employment. It was concluded from the study that the college-trained physically handicapped person can hold his own in the world of work, and it was felt that the various adjustments that must be made by a college to accommodate the physically handicapped students are well worth the effort.

New Journals in Rehabilitation Field

THE U.S. Office of Vocational Rehabilitation has announced publication of a bimonthly journal *The Rehabilitation Record.* The first issue was for February. Sydney H. Kasper is editor of the *Record,* which will be made available to those in rehabilitation work. Research and training program reports will be accented, with space devoted to other phases of rehabilitation. The subscription rate is $1.75 a year (single copies, 30¢), and it may be ordered from the U.S. Superintendent of Documents, Washington 25, D.C.

Occupational Therapy and Rehabilitation in Asia is the title of a new quarterly journal published at The Amerind, 15th Rd., Khar, Bombay 21, India. The first issue, for November, 1959, dealt with India. The next issue will feature in turn rehabilitation services in Japan, facilities for the visually handicapped and the deaf, and the rehabilitation of exservicemen and its relation to civilian problems. Smt. Kamala V. Nimbkar is editor. The subscription rate is $2.00 (or Rs. 5.00) for four issues.

Programs and Schools for Young Cerebral Palsied Deaf Children Reported in Volta Review

THE FEBRUARY, 1960, issue of *The Volta Review* carries an article "Where Does Mike Belong?" by Patrice Costello, which tells of a program conducted by the Crotched Mountain School for Deaf in association with the Crotched Mountain Rehabilitation Center. There a child who is cerebral palsied and deaf can receive specialized training in both areas. The article also lists 63 other schools and classes in the United States and Canada offering this type of combined training. Most of those listed have only preschool programs for children under six years of age, but some take older children.

Two-Year Program for Mentally Retarded Children Reported

AN ARTICLE, "Effects of a Comprehensive Opportunity Program on the Development of Educable Mentally Retarded Children," by Dr. James B. Stroud, Professor, Education and Psychology, and Dr. Lloyd L. Smith, Assistant Professor, Education, both of the State University of Iowa, appears in the February, 1960, issue of *Educational Bulletin* (Dept. of Public Instruction, State Office Building, Des Moines 19, Iowa). The article reports a study conducted during the 1957-1959 school years and sponsored by the Iowa Department of Public Instruction, the State University of Iowa, and the Cedar Rapids Public Schools under a grant from the U.S. Office of Education.

Comments on
The Therapist, The Basic Tool of Treatment

"THE *basic tool of treatment* is the therapist. On her depends the success of any and all tools. Her ability to understand and to motivate the patient realistically is essential.

"Occupational therapy demands that the patient *do* for himself. Berkeley describes the voluntary effort of the patient as 'the driving force of the programme.' The therapist must do more than teach the patient how it is done, she must train him to do it by doing it himself. Therefore the patient must be motivated to *do,* whether or not the therapist is there to urge him on. To accomplish this the therapist must:

"1. Know what the patient needs and what the patient thinks he needs.

"2. See beyond the immediate goal of a recovered part, to the ultimate goal of the patient in his future life.

"3. Find a realistic medium and be skillful in adapting it if necessary, but still keep it acceptable to the patient.

"4. Have sound medical knowledge combined with her own intelligence and observation, to provide treatment in a form best suited to the patient. There is no 'textbook list' for this.

"5. Be continually alert to recognize whether the patient is progressing as an independent person or, as an obedient and conforming child, he is continuing to lean upon her."—*From* Guideposts of Occupational Therapy, *p. 52, by Helen P. Le Vesconte, O. T. Reg., University of Toronto Press, Toronto 5, Canada. 1959. $2.00.*

Booklet on Exhibition of Aids for Disabled Available

NOW AVAILABLE is the booklet *Report on the Exhibition of Aids for the Disabled, Held in Conjunction with the Pan-Pacific Rehabilitation Conference, Sydney, Australia, 1958* (Australian Red Cross Society, New South Wales Division, and the Australian Advisory Council for the Physically Handicapped). This well-illustrated 29-page booklet gives background information on the exhibit and lists the exhibitors and the appliances and equipment shown. The agencies loaning the articles displayed or the commercial firms handling the items are also given. In many cases the cost is noted. Copies of the booklet may be obtained at a cost of 8 shillings, including postage, from Miss L. Bloore, Australian Red Cross Society (N.S.W. Division), 1 York St., Sydney, Australia.

APTA to Hold Annual Conference

THE 37TH ANNUAL Conference of the American Physical Therapy Association will be held at the Penn-Sheraton Hotel in Pittsburgh, June 26 to July 2, 1960. The theme of the scientific program will be "The Physical Therapist and Industry." Physicians, physical therapists, and scientists will participate in the program, which will be aimed at acquainting Association members with industrial medicine and pointing up the role physical therapists should potentially play in the field.

Two-Day Seminar Held on International Rehabilitation

ABOUT 100 persons representing organizations interested in international programs for the rehabilitation of the physically handicapped attended a two-day seminar held in Washington, D.C., on January 28 and 29. The Seminar on International Rehabilitation was sponsored by the Committee on International Affairs, National Rehabilitation Association, and the United States Committee, International Society for the Welfare of Cripples. The host organization was the Office of Vocational Rehabilitation.

Interest in the Seminar demonstrated the serious consideration given to such programs by leaders in the United States, as a result of the recent expansion of activities in international rehabilitation efforts. Although primarily planned for representatives of voluntary and governmental organizations in the United States, persons from Canada, Indonesia, and the United Kingdom also attended.

Of particular interest were discussion groups considering the questions of employment of the physically handicapped and of research in rehabilitation. Reports were presented concerning the possible availability of foreign currencies or "counterpart funds" of the United States government to help support rehabilitation activities in foreign countries.

Miss Mary E. Switzer, director, Office of Vocational Rehabilitation, chaired the opening session. The rehabilitation program of the United Nations was presented by Miss Julia Henderson, director of the U.N. Bureau of Social Affairs. Mr. Donald V. Wilson, Secretary General of the International Society for the Welfare of Cripples, reviewed the international voluntary programs in the field. The executive director of the National Health Council, Mr. Philip Ryan, served as chairman of the meeting considering voluntary contributions.

Participants in various Seminar meetings were: Mr. Julius Cahn, director of Medical Project Committee on Government Operations; Dr. Henry H. Kessler, director, Kessler Institute for Rehabilitation; Mr. Eugene J. Taylor, editorial staff, *New York Times;* Mr. Robert Barnett, executive director, American Foundation for the Blind; and Major General Melvin J. Maas, chairman, President's Committee on Employment of the Physically Handicapped.

Principal speakers of the closing session were the Honorable Kenneth A. Roberts, Member of Congress, 4th District, Ala., and Dr. Howard A. Rusk, director, Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York, N.Y.

Dr. Reynolds Comments on Special Education in Minnesota

"NEARLY 1,500 special teachers, psychologists, social workers, speech therapists, and other specialists are now employed to conduct programs for exceptional children in Minnesota schools. About 20,000 children are enrolled in special education programs with the state paying nearly $2½ million a year in special aids to school districts which provide these special services. This is a large and rapidly growing program. Yet, only about a third of the Minnesota school children needing special education services are receiving them."—*From "The Psychologist in Special Education," by Maynard C. Reynolds, Ph.D., in the February, 1960, issue of the* Minnesota Journal of Education, *p. 22.*

Rehabilitation Literature To Be Recorded for Blind

THE TWELVE 1960 issues of *Rehabilitation Literature* are to be recorded by Recording for the Blind, Inc., 121 E. 58th St., New York 22, N.Y. This will be the first time the service has undertaken to record a periodical. Established under a grant from the Fund for Adult Education, Recording for the Blind provides a free educational service to blind persons in the United States. The records are never sold but are loaned to blind applicants without charge. Text and reference books and other titles of limited use are recorded at the specific request of persons for use in their studies or professions.

Summer Courses in Speech and Hearing Listed

THE MARCH 1960 issue of *The Volta Review* contains data from 110 colleges and universities offering special courses and workshops in speech and hearing this summer. The listings also offer information on available scholarships and fellowships.

Cerebral Palsied Graduates of Special Classes in Northern California Surveyed

A STUDY of out-of-school cerebral palsied pupils from the special day classes for orthopedically handicapped of northern California has been completed by the state's Bureau of Special Education. The study included pupils enrolled in the special day schools between September, 1951, and June, 1958.

Of the 625 questionnaires mailed to parents or guardians, 308 were returned giving the information requested. The following is a summary of their responses:

Pupils Now Attending School Elsewhere:	
Elementary Schools	95
Junior High (12), Senior (24)	36
Home Instruction	8
Private Schools	8
Other Special Day Classes (.2, .1, deaf)	54
Sonoma State Hospital	36
State School for Deaf	2
College	2
Total	241
Occupational Status:	
At Home (majority are severely involved physically and/or mentally)	79
Training Centers or Sheltered Workshops	16
Employed Full-time	7
Employed Part-time	15
Vocational Rehabilitation Tr.	5
Total	122
Participation in Community Organizations:	
Attend Church	116
Boy or Girl Scout Clubs	26
YWCA or YMCA	8
Recreational Programs	33
Others: Campfire Girls, Indoor Sports Club, Summer Camps, Bowling, etc.	19
Total	202
Physical Status of Pupils:	
Health Improved	179
Vitality:	
Improved (122), Good (76)	198
Same (47), Fair (7), Poor (6)	60
Total	258
(Majority improved in muscle coordination)	
Self-help improved in majority	188
Improved in communication with strangers	177

A complete summary of the study will be mailed upon request to the state's Bureau.

Author Index